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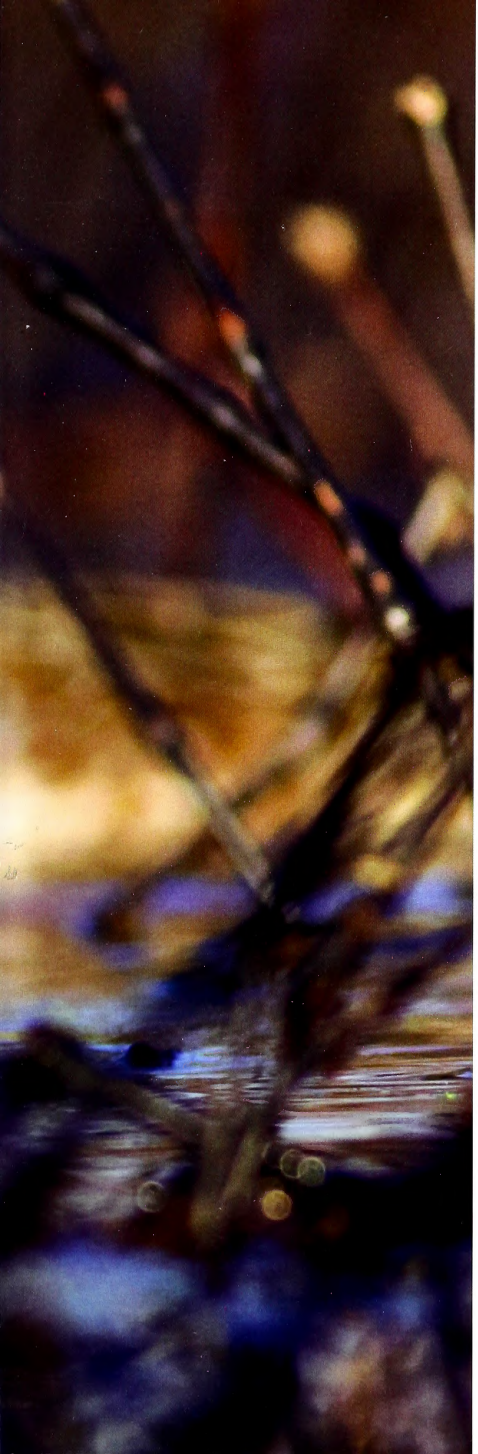
WILDLIFE IN NORTH CAROLINA
2011 PHOTO COMPETITION

The beautiful green-winged teal is a common winter visitor and a popular species among hunters. This bird was photographed in a Pamlico County waterfowl impoundment. **PHOTOGRAPH BY MATT PURVIS.**



Volume 76 | Number 1

WILDLIFE IN NORTH CAROLINA

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Cover: This year's winning photograph features a great egret carrying nest material in early March near Southport. This egret is a year-round resident of the North Carolina coast. PHOTOGRAPH BY GENE FURR.

Wildlife in North Carolina is the official educational publication of the North Carolina Wildlife Resources Commission. It is dedicated to the sound conservation of North Carolina's wildlife and other interrelated natural resources and also to the environment we share with them.

EDITOR'S NOTE

In the days of my youth when the dark, cold rains of winter settled in and the red clay fields of Granville County turned soft as rotten fruit, quail hunters remained indoors. Because my hunting then was restricted to Saturdays and holidays, I hated the cold rains. On those days, some of the old men who hunted bobwhites hard would pass an hour or two at one country store or another, maybe gathered around the stove in Hyler's or across the line in Virginia at Tommy T's. Or maybe they would stop by the auto mechanic's little shop and talk while he fixed a balky Chevy or Ford, occasionally flaming the dank air with his favorite curse, the strength of which was undercut by the fact that he could not pronounce the letter "g" at the beginning of a word.

NCWRC

Mostly, though, they stayed at home and kept warm, as did I. With most of those old men (and they were probably younger than I am now), I had no notion of their lives outside bird season. All I knew is they hunted bobwhites. The old quail hunters were like gods to me, and I dreamed of growing up to be just like them.

Unfortunately, I came along at a turning point for bobwhites. I began hunting in the 1960s when quail were still the preeminent game species of North Carolina and much of the South. Although quail hunting was still very good in the 1970s, the little brown bird that had nourished a hunting culture for generations was in a decline that has yet to end.

Many hunters, biologists and state agencies, including the N.C. Wildlife Resources Commission, have invested heavily in money and manpower in an effort to bring back Bob. The reasons for the declines, as biologist Mark Jones explains in "The Decline of Bobwhite Quail in the South" (p. 28), are many and difficult to solve. The work continues, but already, I fear, the culture of bobwhite hunting is aged and creaky. Fewer young hunters know the joy that Aldo Leopold expressed when he wrote: "The hope of hearing quail is worth half a dozen risings-in-the-dark." And they do not awake on frosty mornings with thoughts in their heads of dogs, startling covey rises and sparkling winter days that fade into a cloudy sunset smeared with yellow.

Jim Wilson

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WILDLIFE IN NORTH CAROLINA

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No Dog,
NO PROBLEM

The Grouse Horse

Gerald Almy's article in the December issue ("No Dog, No Problem") brought back some fond memories of hunting quail with a friend years ago. I owned an old Stevens 20-gauge that misfired on the first shot at times. We did not have the fortune of having a dog, but we managed to bag our limit much of the time. Quail were plentiful in Surry County then. Occasionally, we would flush a grouse, but never managed to recover from the explosion in time to hit one. When we had enough quail from several hunts, Mom would make quail on toast with the best gravy ever eaten.

Years later I bought a horse named Bree—a quarter horse, Arabian mix of questionable intelligence. What he did have was an unusually keen sense of smell. He knew the location of every apple tree or persimmon tree in the area and would veer off the path toward a tree loaded with ripe fruit. Bree also knew enough not to eat persimmons still clinging to the tree.

Most of the time I rode alone on the old logging roads at the base of the mountains. Bree and I would be traveling up a road on an autumn afternoon. Suddenly he would stop with all four feet planted as solidly as porch posts. No amount of kicking could convince him to move. The first time it happened I knew enough about horses to know that something dire was about to occur. I shorted the reins, grabbed mane and hung on. Within seconds a grouse exploded within a few feet of us. Then Bree exploded. Only sheer luck and athletic ability kept me astride instead of hoofing it home following a terrified horse.

I'm guessing he could smell the birds. He never reacted to any other birds but grouse. Over the years he repeated this heart-stopping event many times. I finally sold Bree, deciding I was too old to ride an exploding horse. I don't think I mentioned his peculiar behavior to his new owner. Thanks for the memories.

Martha Rowe Vaughn
Mt. Airy

I enjoyed reading "No Dog, No Problem" in the November/December *Wildlife in North Carolina*. While I prefer chasing ruffed grouse behind a good bird dog, there is no question that these great game birds can be hunted successfully without the help of man's best friend. I would hope that those who do can shoot better than me and not leave any wounded birds behind—much less an issue if you have the help of a good nose.

I would, however, challenge the choice of pics used in the article. On the first page of the article it appears to me that the bird depicted as a ruffed grouse is probably one of its cousins, perhaps a spruce grouse?

Having hunted in the north woods where the two species share habitats, I have an appreciation for the similarities in appearance, but the two are entirely different in behavior, especially around humans. I believe the spruce grouse is most responsible for the "fool hen" label often repeated in areas where these birds have a deserved reputation of appearing tame when approached. Anyone who has much experience hunting ruffed grouse, especially here in the Appalachians, would never think "fool" (unless it is a self-assessment) when in pursuit of these wily birds.

Steve Henson
Clyde

Jim Wilson: Steve is absolutely correct: one spruce grouse did indeed slip into the mix. The spruce grouse, of the northern U.S. and Canada, is sometimes called "fool grouse" because of its tameness. It will feed just a few feet from people.

Cradle of Forestry

I have volunteered for a number of years at the Cradle of Forestry, so I was particularly interested in David Lee's article, and found it quite enjoyable. I was surprised and disappointed, however, that there was no mention of the historic site. An equivalent to my way of thinking would be for me to let our guests cast about looking for the fish hatchery rather than directing them to the Pisgah Center for Wildlife Education. Nonetheless, thank you for your excellent mag, and I will recommend the article to the Friends of the Cradle of Forestry.

Ernie Caldwell
Pisgah Forest

A Worthwhile Read

Congratulations on 75 years and the outstanding November/December 2011 issue of *Wildlife in North Carolina!* As soon as I reviewed the contents page, I knew this would be one of my favorite issues. Any outdoor enthusiast, no matter what the interest, would find this edition a very worthwhile read. I am grateful that your magazine staff continues to offer material related to the many incredible natural assets of our state which go far beyond hunting and fishing. It's vital that we continue to offer educational information regarding North Carolina's natural resources, natural history and the wildlife that depend on our protection, respect and support.

I especially enjoyed "Planning for Wildlife," explaining the Green Growth Toolbox, and "Portraits of Diversity: Birds." "Biltmore: First in Forestry," should make all residents of our state proud and motivated to continue with the protection of the many unique and diverse places just out our backdoors.

Ernie McLaney
Charlotte

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WILDLIFE IN NORTH CAROLINA 2011 PHOTO COMPETITION

Sometimes you have to break the rules to get results. Gene Furr, the 2011 *Wildlife in North Carolina* Photo Competition Grand Prize winner, did that for his winning shot of the great egret. "Most of the time, you do not want to photograph birds from the rear, but breaking this rule gave me a special image," said Furr. "I was near Southport searching for egrets starting to build nests in early March. It was a cloudy day with very little color, and photographing white egrets against a cloudy sky is not the best weather to wish for. I am so honored to win the Grand Prize. This is the fifth straight year that I have placed in the contest, but first time to win the Grand Prize."

Furr said he exposed for the white sky and over exposed it by two f/stops to get a white background, knowing a white egret would record a half a stop less than the background. Furr was using a Nikon D300 with a 200–400mm f/4 zoom. Exposure was 1/1500 sec. at f/5.6 (handheld).

Furr is no newcomer to photography. During his 30 years at *The News & Observer* of Raleigh, he won over 300 awards while serving as staff photographer, chief photographer and photography coach. He retired in 2002 and started photographing wildlife."I always felt that winning the *Wildlife in North Carolina* Photo Competition is such an honor because of the number of entries," he said. Birds are Furr's favorite subject, especially wading birds. But for next year he's going to "downsize" and pursue songbirds.

Marsha Tillett, art director at *Wildlife in North Carolina,* was one of the five judges for the contest. She gave her thoughts on Furr's winning image.

"One of the things I really like about the winning image is… not that it's just a beautiful image, but it's a white bird on a white background," she said. "He shot a white bird on a white background and there's no loss of definition. You still see every feather on the bird. That's what caught my eye. There's also nesting material [in the bird's mouth] and movement [flight], but it's not blurred."

Tillett also explained the process of judging the contest.

"Each of the judges picked out 10 favorites per category and we then reviewed them silently while they were on a computer screen," Tillett said. "The second time we viewed them someone had to speak up for an image or it didn't make the cut. Some images evoked more support than others, and there was some give and take to it. Most of these images are not only shot well technically, but they're also composed so well."

Tillett is a fan of the annual event, now in its seventh year. "It gets our readers involved," she said. "For children, it gets them outside and learning about nature. The contest is a gateway to get people outside and involved in the world of nature."

Other judges were: *WINC* photographer Melissa McGaw; Mike Dunn, coordinator of teacher education for the N.C. Museum of Natural Sciences; Charlie Peek, public information officer for the N.C. Division of Parks and Recreation; and Wildlife Resources Commission Public Information Officer Jodie Owen.

Valuable support was provided by our co-sponsors, the N.C. Museum of Natural Sciences and the N.C. Division of Parks and Recreation. All winning photographs may be seen on exhibit through March at the museum thanks to our exhibition sponsor, JW Photo of Raleigh. Various North Carolina state parks will exhibit selected photos from the competition throughout the year. Details and rules for the 2012 competition will be posted on www.ncwildlife.org in May. The entry period will open on June 1 and close on Sept. 1. This year's field totaled 3,689 photographs. In the competition's seventh year, approximately 1,000 photographers took part.

—Mike Zlotnicki

Gene Furr, Raleigh
Egret Building a Nest, Wilmington

Veteran photographer Gene Furr captured this egret in breeding plumage carrying nesting material last March. Although photographing birds from the rear is not usually an optimum angle, it proved to be one for Furr. The shot was taken near Southport on a cloudy day with very little contrast.

(Nikon D300, 200–400mm lens, 1/1500 of a second, f/5.6)

BIRDS **FIRST PLACE**

Ed Erkes, Seven Springs
Prothonotary Warbler with Prey, Johnston County

The image was taken at Howell Woods Environmental Learning Center, a 2,800-acre natural wooded area in Johnston County. Erkes does volunteer work there monitoring the bluebird nesting boxes each year and also spends a lot of time photographing there. He spent three days photographing a prothonotary warbler nest in a swampy area. He used four flash units to freeze the motion of the female in flight as she flew to the nest carrying a jumping spider.

(Nikon D300 with a Nikon 200–400mm zoom, ISO 100, 1/250 of a second, f/22)

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BIRDS **SECOND PLACE**

Jeffery Lewis, Manteo
Common Yellowthroat, Alligator River National Wildlife Refuge

Lewis was shooting on the Alligator River National Wildlife Refuge when he captured this common yellowthroat singing. He used his car as a blind for closer approach. Lewis said that the common yellowthroat is one of the first birds to sing in the spring. "The energy that these tiny birds put into defending their territory is amazing," he said.

(Canon 50D, Canon 100–400mm at 400mm, ISO 500, 1/1600 of a second, f/5.6, aperture priority mode)

BIRDS **THIRD PLACE**

Jim Ruff, Blowing Rock
American Kestrel, Pungo Lake

Ruff captured this image of an American kestrel near Pungo Lake in January of 2011. He was trying to photograph snow geese and tundra swans when this little falcon "kept flying around begging for attention." "When he posed on a nearby tree limb, I couldn't refuse!" he said.

(Canon 7D, 500mm IS lens + 1.4 tele-extender, ISO 800, 1/500 of a second, f/9.5)

MAMMALS **FIRST PLACE**

Scott Hotaling, Cullowhee
Elk Before Dawn, Cataloochee Valley

After hiking a short way into the Cataloochee Valley before dawn on a cold, October morning, the rising sun revealed quite an impressive sight for Hotaling. "Fog and low-angle sunlight combined for an ethereal atmosphere that only got better when this lone bull elk walked in front of my lens and bugled," he said. "Due to the stillness of the morning, the fog from his breath hung around his impressive antlers like a crown of sorts."

(Canon EOS 5D MK II, 200mm focal length, ISO 200, 1/400 of second, f/4)

MAMMALS **SECOND PLACE**

Charles English, Wilmington
Red Fox Portrait, Airlie Gardens, Wilmington

This inquisitive red fox walked "right on up to me," said photographer English of Wilmington. He got the shot at Airlie Gardens.

(Canon EOS 5D MII, 420mm focal length, ISO 200, 1/400 of a second, f/4)

MAMMALS **THIRD PLACE**

Scott Hotaling, Cullowhee
Bull Elk Bugling, Cataloochee Valley

This lone tree in the Cataloochee Valley is one of Hotaling's favorites. It looks especially regal in the fall. "On this particular morning as a bull elk bugled to his harem, it appeared he was bugling directly up at this impressive tree," he said. "That's the story I wanted to convey, the impressive wildness of the place."

(Canon EOS 5D, 168mm focal length, ISO 400, 1/320 of a second, f/9)

REPTILES & AMPHIBIANS **FIRST PLACE**

Mark Stanley, Wilmington
Turtle Crossing, Pender County

How did the turtle cross the road? In the hands of the photographer. Stanley found this Eastern box turtle crossing Stag Park Road in Pender County and seized the moment. After some crazy looks from drivers while he lay in the rain-soaked road shooting pictures, the turtle was moved to safety.

(Canon 40D, Canon EF 70–200mm IS, ISO200, 1/320 of a second, f/7.1)

REPTILES & AMPHIBIANS
SECOND PLACE

Alan Cameron, Flat Rock
Green Salamander with Eggs, Transylvania County

The green salamander is the only one of the state's 66 species of salamander listed as "rare and endangered." Cameron came upon this female guarding her eggs in Transylvania County and used a simple point-and-shoot camera to capture this shot, which shows that you don't need a high-dollar camera to take winning photos.

(Casio EX-Z50, 1/60 of a second, f/4.4)

REPTILES & AMPHIBIANS
THIRD PLACE

Patti White, Bear Creek
Anole on Ginger Lily Leaf, Bear Creek

"This handsome guy walked to the edge of the leaf and posed for his portrait," White said. "I love the shallow depth-of-field I get with the 105mm lens. It allows that beautiful eye to be the main attraction."

(Nikon D7000, Nikkor 105mm lens, ISO 800, 1/250 of a second, f/4.5)

INVERTEBRATES **FIRST PLACE**

Ryan Montgomery, Greenville, S.C.
Going Home, Cape Point, Hatteras Island

This was shot at Cape Point on Hatteras Island in January of 2011. Montgomery grew up on the coast of South Carolina and said he had never seen so many starfish and "mermaid's purses" at one time. He got soaked by the freezing water while taking this, but it was worth it for a unique sunset shot.

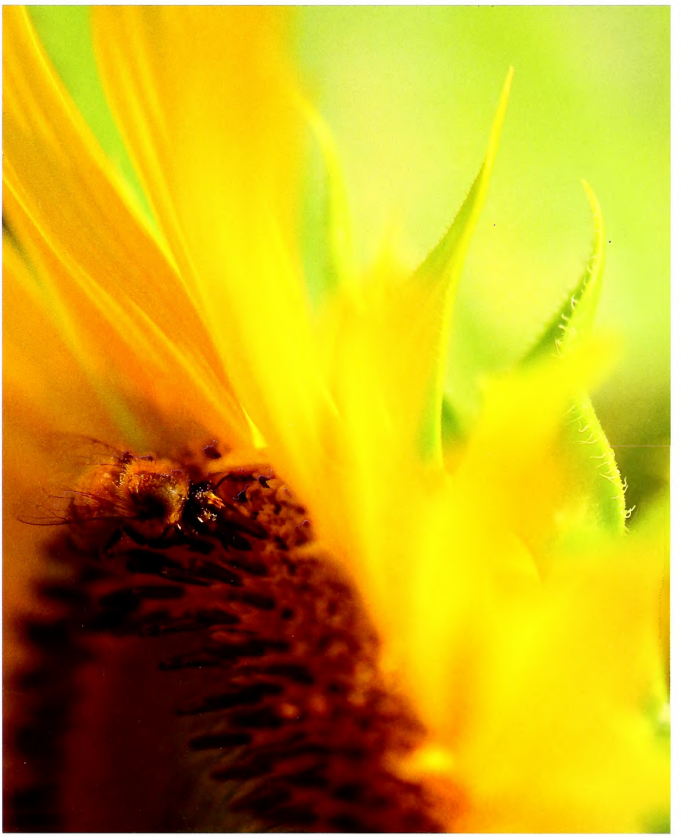
(Canon EOS 5D Mark II, Really Right Stuff tripod and ball head, Canon 17–40mm at 17mm, 1/2 of a second, f/11, cable release)

INVERTEBRATES **SECOND PLACE**

Ed Erkes, Seven Springs
Moths to a Flame, Seven Springs

Last August was such a hot month that Erkes didn't do much photography during the heat of the day, so he decided to spend several evenings trying to attract and photograph moths on his front porch. He attached a light bulb to a tripod and placed two flash units in front. The flashes were set to rear-curtain sync to fire the flash at the end of the exposure. The result was blurred wing beats lit by the light bulb during the 1/10-second exposure, followed by sharp images of the moths when the flashes fired.

(Nikon D300, Sigma 17–70mm lens, 1/10 of a second, ISO 200, f/22)

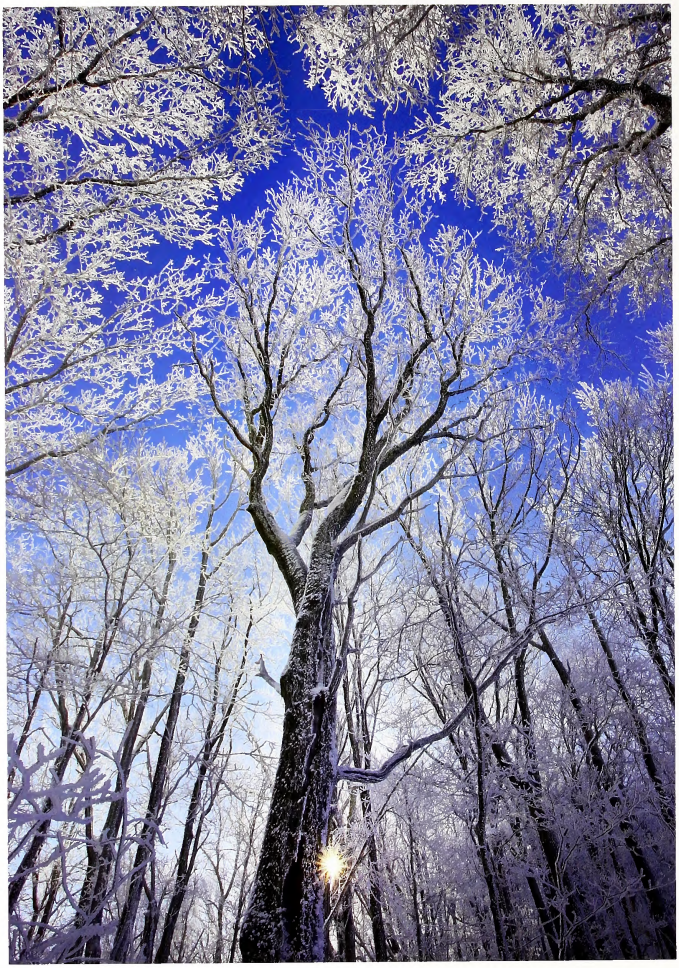


INVERTEBRATES **THIRD PLACE**

Patti White, Bear Creek
Bee on a Sunflower, Bear Creek

White said a friend wanted her to try his extra 105mm Nikkor lens, while another friend called to tell her about a beautiful field of sunflowers she'd passed on the side of the road. "This photograph is the end result," she said. "And yes, I ended up buying the lens!"

(Nikon D7000, Nikkor 105mm 2.8 lens, ISO 100, 1/1000 of a second, f/3.3, exposure bias +0.3)



WILD PLANTS **FIRST PLACE**

Scott Hotaling, Cullowhee
Fresh Snow, Blue Ridge Parkway near Cherokee

Hotaling said, "I've been looking for this photograph for years. Blue sky and snow and ice-laden trees. At no other time of the year, in my opinion, is a place as beautiful as the first clear day after a fresh snow." For this particular shot, Hotaling walked through the forest just after sunrise, craning his neck in search of something geometric, something that "made sense." Luckily, he happened upon this diamond-shape in the canopy.

(Canon EOS 5D, 20mm focal length, ISO 250, 1/125 of a second, f/18)

WILD PLANTS
SECOND PLACE

Monty E. Combs, Wilkesboro
Azalea Reflections, Grandfather Mountain

Combs was visiting Grandfather Mountain last May. It had rained the night before, and the early morning sun had not dried all of the rain drops from the flame azaleas. He thought the reflections of the flowers, sky and sun would make a nice shot. And it did.

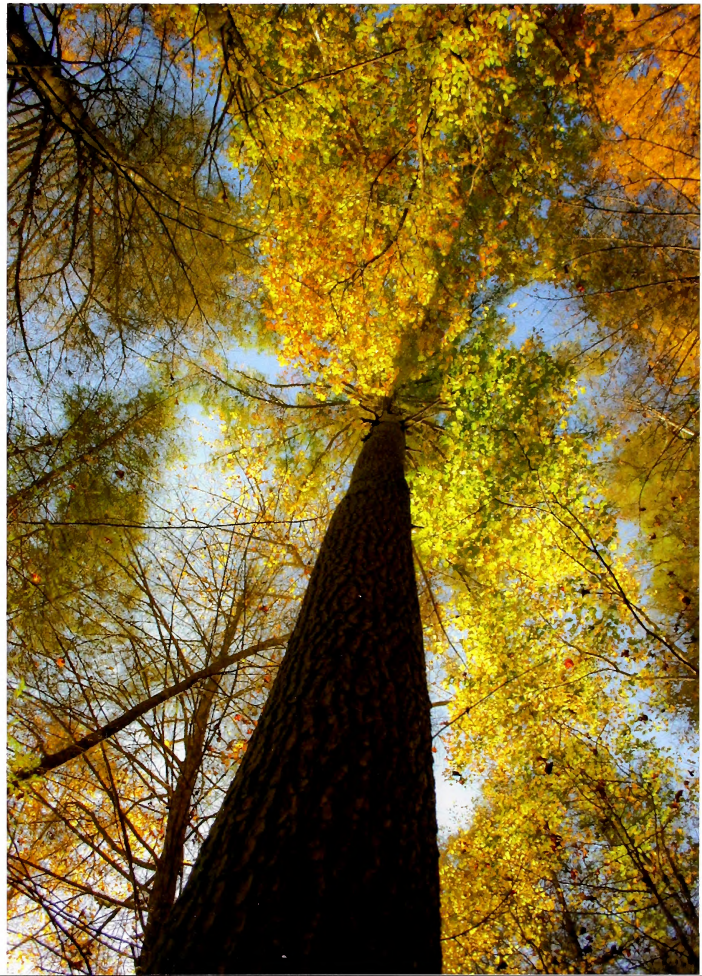
(Canon 5D, 100mm macro lens, ISO 100, 1/250 of a second, f/4.5)

WILD PLANTS
THIRD PLACE

Cindy W. Yount, Morehead City
Unexpected Overhead, Dupont State Forest

Dupont State Forest was the scene for this canopy shot captured in October of 2010. Yount was headed for a waterfall to shoot when she heard a hawk call in the forest. She looked up and didn't see the hawk but did see this scene. "It made me realize that from time to time, as we walk along the paths of life, we should all pause, stop and take a look upward for the unexpected," she said.

(Nikon D60, 18–55mm lens, ISO 200, 1/60 of a second, f/4)



OUTDOOR RECREATION **FIRST PLACE**

Amanda Prince, Fletcher
First Flight, Hooper's Creek

Prince and her husband Jonathan had been trying for years to fly this "difficult" kite they bought in Kitty Hawk on their honeymoon. Finally, a blustery fall day set the stage. "I grabbed my camera, my husband grabbed the kite and we were thankful to capture our 'first flight' after so many unsuccessful attempts," said Prince of the picture, taken at Hooper's Creek.

(Nikon D200, 10.5mm fisheye lens, ISO 400, 1/800 of a second, f/8)

OUTDOOR RECREATION
SECOND PLACE

Karen Doody, Morehead City
Divers on the Hangline, Atlantic Ocean

Twenty miles off the coast of Morehead City lies the U.S.C.G. cutter *Spar*, sunk as part of the artificial reef program. Doody said sea conditions were perfect to capture the divers waiting on the hangline before surfacing, and the curious barracuda added some "local color" to the shot.

(Nikon D300 in a Sea & Sea underwater housing, Sea & Sea strobes, Tokina 10–17mm lens, ISO 200, 1/320 of a second, f/6.3)

OUTDOOR RECREATION
THIRD PLACE

Scott Hotaling, Cullowhee
Ice Climber, Jackson County

On cold winter days, the roadside of NC 215 near the Blue Ridge Parkway becomes an ice-climbing gym of sorts. "On this particular morning, one of my fellow climbers was ascending a particular dramatic patch of ice in 'fat' conditions," said Hotaling. "We got a good amount of fun climbing before the wind and snow picked up as the sunlight faded."

(Canon EOS 5D, 40mm, ISO 500, 1/125 of a second, f/8)

WILD LANDSCAPES **FIRST PLACE**

Kevin Council, Chapel Hill
Oak and Wisteria, Chapel Hill

This is an infrared shot, and we'll let Council explain. "Infrared wavelengths are reflected very strongly by most types of vegetation," he said. "This, coupled with the near-black sky IR provides, can produce some very dramatic results." "I find the sculptural forms made by wisteria and kudzu very interesting as they overgrow trees, even more so when lighting conditions are good," he said.

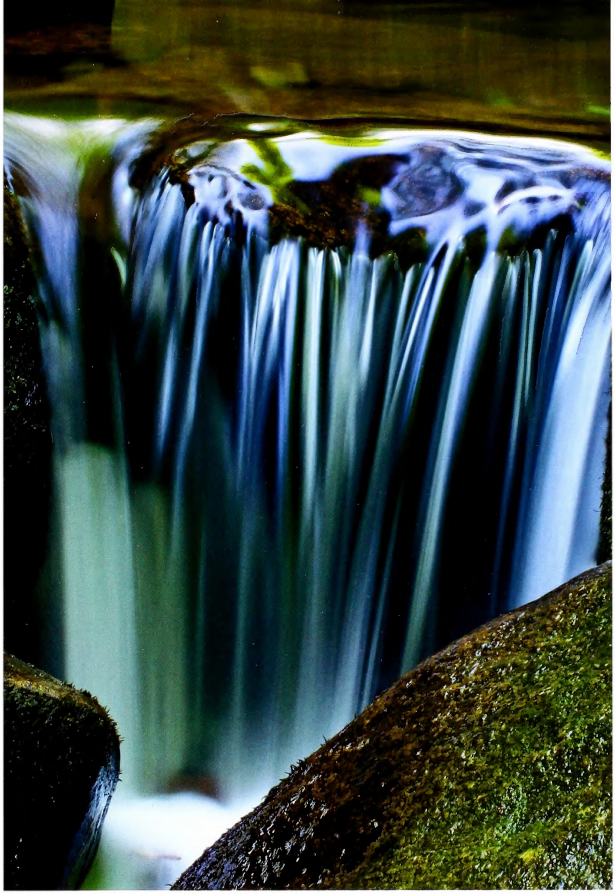
(Fuji Finepix IS1, 28mm, ISO 80, 1/125 of a second, f/3.2)

WILD LANDSCAPES **SECOND PLACE**

David McKenzie, Mooresville
Dropoff, Jacobs Creek

McKenzie frequently shoots streams in South Mountains State Park, but his intention this day was to shoot macro shots, so the only lens he brought was a 180mm macro. He shot without a polarizing filter in order to give the water a "liquid glass" look. The fixed-focal length lens made the framing harder than normal.

(Nikon D300, tripod, Sigma 180mm macro lens, ISO 200, 3 second exposure, f/22)



WILD LANDSCAPES **THIRD PLACE**

Jim Ruff, Blowing Rock
Hump Mountain, Avery County

It was a cold and windy day when Ruff took this shot of Hump Mountain in 2010. He said wind chill factors in the -20 to -30 F range made capturing this image especially rewarding.

(Canon 7D, 100–400mm IS lens at 100mm, ISO 100, 1/30 of a second, f/22)

ANIMAL BEHAVIOR **FIRST PLACE**

Mark Stanley, Wilmington
Striped Bass School, N.C. Aquarium at Fort Fisher

"It is not every day that a low-budget photographer gets his hand on a piece of glass like the 85mm/1.2," said Stanley. He and his family were visiting the North Carolina Aquarium at Fort Fisher when another photographer asked if he would like to try his new lens. The winning picture was the fourth image Stanley took with the lens. "I knew right then it was a keeper," he said.

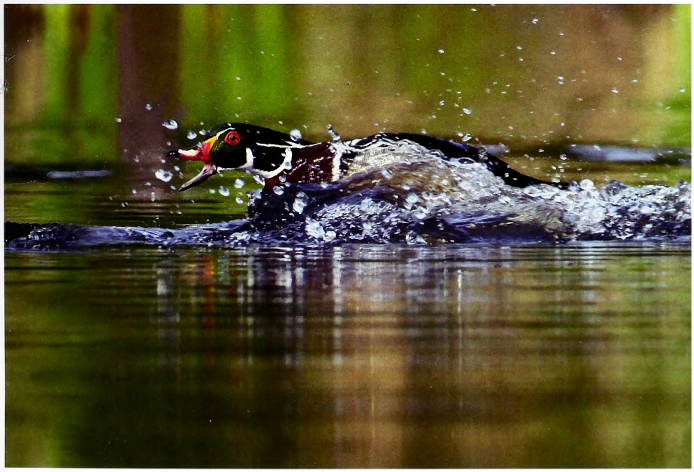
(Canon 40D, Canon EF 85mm, ISO 200, 1/250 of a second, f/1.2)

ANIMAL BEHAVIOR
SECOND PLACE

Mark Turnau, Hendersonville
Squirrel in Snow, Hendersonville

It was an Easter weekend snow in the spring of 2009. Looking out the back deck, Turnau and his wife saw this squirrel just sitting there with its eyes closed, looking so cold, so he grabbed his camera and captured this precious shot.

(Nikon D90, 180mm focal length, ISO 200, 1/294 of a second, f/5.6)



ANIMAL BEHAVIOR
THIRD PLACE

Ed Erkes, Seven Springs
Wood Duck Rush, Seven Springs

"The wood duck drake doesn't have a defined territory in the sense of a defined area of land and water," Erkes said. "The territory he defends is an area around his mate. If another male gets too close, as happened here, the drake will rush at him at high speed." This image was taken from a photography blind on Erkes' 1-acre backyard pond last May.

(Nikon D300, Sigma 300–800mm lens with 1.4X tele-converter, ISO 500, 1/640 of a second, f/11)

YOUTH PHOTOGRAPHER 13–17
FIRST PLACE

Stockton Ray, Cary
Sunrise at Table Rock, Burke County

It was around 7:45 on a foggy, cool autumn morning. Ray had camped out the night before at the Table Rock Campground and had risen early in the morning to take the 15-minute hike from the campground up the ridge at The Chimneys to watch the sunrise. "After climbing up to the edge of the ridge, I found the valley engulfed in the morning fog," he said. "I turned around and composed this picture of Table Rock from that vantage point."

(Nikon D3, Nikkor 24–70mm at 24mm, ISO 800, 1/125 of a second, f/11)

YOUTH PHOTOGRAPHER 13–17
SECOND PLACE

Maggie Clerkin, Raleigh
Up and Autumn, Raleigh

Clerkin was walking in Williams Memorial Park in Raleigh back in Nov. of 2010 when she looked up and saw a winning scene. "The sky was so blue and the leaves so orange, it really looked like fall," she said. "I love fall photos. I tend to do most of my shooting in autumn. I love looking at things in my own way."

(Canon EOS Digital Rebel XSi, EF 18–55mm lens at 18mm, ISO 100, 1/125 of a second, f/5.6)

YOUTH PHOTOGRAPHER 13–17
THIRD PLACE

Joe Congleton, Clayton
Cope's Gray Treefrog on a Fence, Clayton

Photo subjects are where you find them, even in the backyard. "The frog was on the backyard fence, appearing to hide in the fence rail hole," Congleton said. "I just thought it would make a neat picture, so I took it." Congleton used the "close up" setting on his Nikon Coolpix to capture this image.

(Nikon Coolpix, Nikkor 6–50mm lens, ISO 50, 1/105 of a second, f/2.7)

YOUTH PHOTOGRAPHER 13–17
HONORABLE MENTION

Danielle Atkinson, Ronda
Dead Dragonfly, Ronda

At first Atkinson thought the insect was alive and proceeded to shoot it. She later learned it was dead, "But it made a fabulous picture, if I do say so myself," she said.

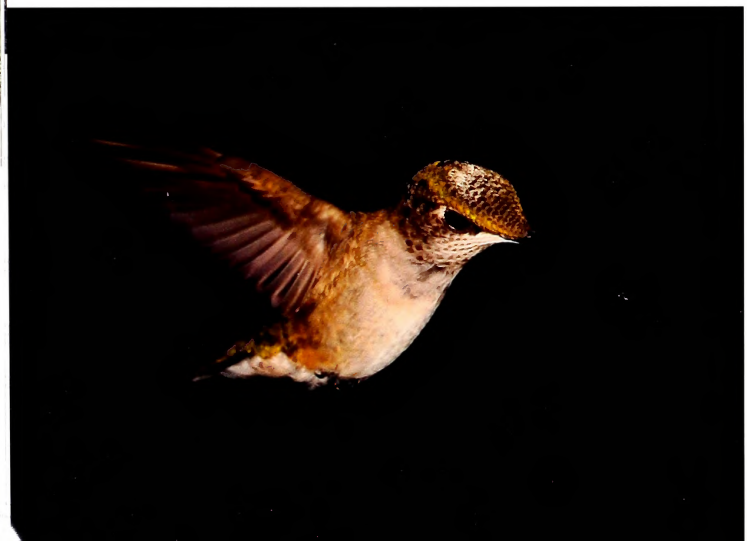
(Data unknown)

YOUTH PHOTOGRAPHER 13–17
HONORABLE MENTION

Anna Blythe Davis, Swan Quarter
A Closer Look, Mattamuskeet National Wildlife Refuge

Davis was participating in a photography workshop at Mattamuskeet National Wildlife Refuge in January 2011 when she took the picture. The workshop was a 13th birthday present from her parents. She was there to photograph birds, but her best picture of the day was a bird feather.

(Canon EOS 50D, 60mm lens, ISO 100, 1/160 of a second, f/5.6)



YOUTH PHOTOGRAPHER 13–17
HONORABLE MENTION

Stockton Ray, Cary
Hummingbird in Flight, Cary

Before he started working on this picture, Ray had a clear idea of the result he wanted—a ruby-throated hummingbird evenly lit, frozen in flight against a black background—but it turned out to be much harder than he had thought. "The picture was taken off my back porch in the late evening near my feeder," he said. "I set the camera with a neutral density filter and low ISO so that the background would be completely black, then shot the picture through a ring light which lit the bird allowing for the strong contrast and extreme high speed." Got that?

(Nikon D3, Nikkor 24–70mm at 70mm, ISO 400, 1/320 of a second, f/11)

YOUTH PHOTOGRAPHER 12 & UNDER
FIRST PLACE

Jack Montgomery, Greenville, S.C.
Heaven's Gate, Great Smoky Mountains

Montomery, 8, was in the Great Smoky Mountains with his father Ryan (First Place, Invertebrates) and his grandfather to see the sunset, but there were too many clouds. He said his father and grandfather "were not paying attention" when some light broke through, so he shot it with his dad's camera.

(Nikon D7000, tripod, cable release, Sigma 120–400mm at 120mm, 1/500 of a second, f/8)

YOUTH PHOTOGRAPHER 12 & UNDER
SECOND PLACE

Nicole Howren, Cary
Deer in Reeds, Cape Hatteras

This picture was taken near the Cape Hatteras lighthouse at dusk last spring. Howren was compelled to return to the lighthouse to see the family of deer that would appear each evening to graze and walk along the dune line. "It was a beautiful sight to witness as the sun set," she said.

(Canon EOS 40D, Canon 400mm lens, ISO 800, 1/800 of a second, f/5.6)

YOUTH PHOTOGRAPHER 12 & UNDER
THIRD PLACE

Darren Germann, New Bern
Dandelion, New Bern

This photo was taken in April of 2011 at Fisher's Landing off US 70E in New Bern. After taking several shots of the dandelion, Germann decided to zoom in really close and "get the inside scoop." "After looking at the shot, I decided that it reminded me of two things: a cluster of snow fairies or a kaleidoscope," he said.

(Nikon D7000, 105mm macro lens, ISO 100, f/7.1)

YOUTH PHOTOGRAPHER 12 & UNDER
HONORABLE MENTION

Darren Germann, New Bern
Grand Grasshopper, Great Smoky Mountains

During a trip to the mountains in August, Germann went out to find some interesting things to shoot. Amongst some roadside weeds Germann spied this grasshopper munching weeds and he decided that it would make a great shot.

(Nikon D7000, 105mm macro lens, ISO 100, f/10)

YOUTH PHOTOGRAPHER 12 & UNDER
HONORABLE MENTION

Jacob Thomas, Waxhaw
Green Treefrog, backyard

Thomas found this treefrog in the yard of his Union County house, and used a Nikon Coolpix camera to get the shot. "One of the many reasons I like this picture is because of the detail it holds and the texture it shows," he said.

(Nikon Coolpix, ISO 80, 1/50 of a second, f/3.1)

YOUTH PHOTOGRAPHER 12 & UNDER
HONORABLE MENTION

Ethan Whitaker, Wallburg
Grasshopper Eating Plant, Wallburg

The Whitakers had been watching this grasshopper eat this plant for weeks. One morning in August last year, Ethan Whitaker, 8, asked his mother Kathy Whitaker if he could take some pictures. "That was the day Ethan and I discovered he had real talent and enjoyment for photography," Kathy Whitaker said.

(Nikon D50, Nikkor 28–80mm lens at 80mm, ISO auto/400, 1/800 of a second, f/5.6)

MELISSA MCGILL/ACWW

PART 1
of a Two-Part Article

The Decline of BOBWHITE QUAIL *in the South*

BIG PROBLEMS DON'T COME WITH EASY ANSWERS.

Written by Mark D. Jones

The last 100 years has been full of wildlife success stories. Species such as white-tailed deer, wild turkeys and black bears are thriving in our state and throughout the country. In the West, elk, pronghorns and many other game species have increased to numbers unknown since before the continent was settled by Europeans.

However, throughout most of the range of the bobwhite quail, the decline of this magnificent game bird remains one of wildlife management's major unresolved problems.

An experience I have had in eastern North Carolina is indicative of the decline of quail. I first hunted quail in North Carolina about 20 years ago in Beaufort County. At that time, there were still good quail populations on farms owned by my friends. In the short 20 years since, I have witnessed quail populations decline in those areas. The populations of that era were good by today's standards, but were already on the downward spiral, and the decline I experienced is nothing compared to the drop-off seen by older hunters

KEN TAYLOR / NCWRC

This scene, so emblematic of decades of quail hunting, is seen much less often than 30 years ago.

who remember the heydays of the 1950s and 1960s. This same story could be told for countless areas throughout the South and has been well documented in the entire region.

Theories regarding the causes of the decline of bobwhites are as abundant as the birds themselves once were. Ask any quail hunter, farmer or armchair biologist and you will hear theories blaming fire ants, hawks, fescue, diseases, weather, coyotes and dozens of other factors. Each month it seems that I hear a new reason proposed for the quail decline. Many folks attest the problem must result from something "unusual" because "nothing has changed" relative to habitat over the period quail have been declining.

How does one address the assertions that the problem must be something other than habitat? Many smart folks truly believe the landscape has changed little over the last 40 to 50 years. Well, like the tree growing in your front yard over a lifetime, sometimes slow and subtle changes are not as noticeable as we might expect. That sapling you planted when you were young might now be so tall that you fear it will fall on your house in a storm. You don't notice the changes. Basically, this same thing has occurred with quail habitat throughout most of the nation. If you are a skeptic, facts and statistics tell a different truth. Every available statistic on land use and land management tells us that, throughout most of the range of bobwhite quail, we have experienced dramatic landscape-level negative changes since the glory days of quail following World War II. Most of these changes have not been good for the game bird we all love.

Fescue and other sod-forming grasses have replaced native grasses and plants in most of our cattle pastures, hay lands, roadsides, powerline rights-of-way, ditches, field borders and grassed waterways. Many of these grasses were not even around following World War II, and were more recently developed as effective erosion-controlling plants that are easy to grow in poor soil and with low moisture. While the merits of these grasses for stopping erosion cannot be denied, they are no friend of quail and other ground-nesting birds. Most birds simply cannot and will not nest or raise chicks within the habitat provided by these grasses.

Mowing has become a normal practice on most farms throughout North Carolina and the South. Mowers did not even exist on Southern farms like the Virginia farm my grandfather worked in the years before the Great Depression and were rare when my father worked part-time in the summers in the 1950s-1960s. Oh, how times have changed! The operator of my own Craven County farm laments each year that I won't let him mow my ditches because he's "afraid the neighbors will think he's not a clean farmer." Ask any North Carolina farmer, and I would bet at least 95 percent will tell you that mowing of "weeds" and cleaning of ditches is critical to their farm operations—especially if they rent land from an owner who expects his lands to be well groomed. In many areas, well groomed farms are a selling point for farmers wishing to lease additional lands from other landowners. In the South, there is now a real social stigma attached to having ill-kept farms. This simply was not the case when quail were abundant.

Forestry practices may be among the most important yet almost unnoticed changes to the Southern landscape for quail. The trees

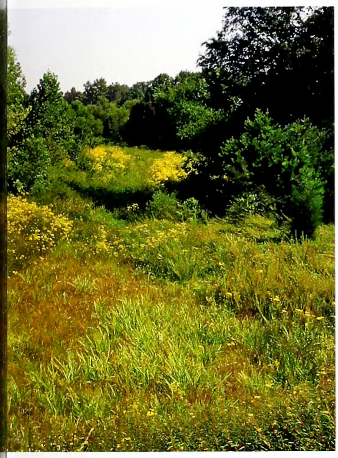
KEN TAYLOR / NCWRC

may look the same, but an important change has occurred with the groundcover. During the quail booms following World War II in the South, burning of woodlands was a normal and routine practice throughout the region. If fires did not start from natural causes such as lightning, locals often started them in order to improve browse for free-ranging livestock and to control insects and pests. An 85-year-old quail hunting friend from Beaufort County has frequently told me of the days when he could walk and hunt from Campbell's Creek to Aurora (about 8

The **DECLINE** *of this* **MAGNIFICENT GAME BIRD REMAINS** *one of*

miles as the crow flies) through stands of fire-maintained forests. Anyone who knows anything about this area, or the typical forested area in North Carolina, knows that it would be nearly impossible to walk, let alone bird hunt, through large swaths of our state's forests today. You bird hunters know what I am talking about.

The simple reason is that our forests are composed of thicker stands of trees with heavy, almost impenetrable understories,



and they suffer from a lack of prescribed fire which leads to degraded plant groundcover. There have also been other less noticeable changes to common timber management practices, such as heavier tree planting rates which shade out beneficial groundcover. Throw in the use of modern forestry chemicals to kill vegetation that competes with desired trees, and you have many unintended consequences, including the loss of beneficial plants quail and other wildlife species need to survive. All of these factors combined have resulted in a major loss of forested habitat for quail. Our average forested areas simply do not provide quality year-round quail habitat.

Development is another factor that we often forget when thinking of the quail decline. Many houses, stores, roads and other man-made structures did not exist during the quail boom periods. Many older quail hunters tell stories of watching their favorite places bulldozed for a housing development or paved for a department store parking lot. While the direct impact on quail cannot be denied, these types of developments may affect hunters more than the birds they pursue. It would be hard to measure, but there is no doubt that the amount of available hunting habitat is greatly reduced from years past.

Based on numerous research projects and experiences, most professionals around the country view habitat as the most important issue in the decline of bobwhite quail and other game birds. While my view is colored by my experiences as a professional wildlife biologist working with quail off and on for the last two decades, it is also influenced by my experiences as a lifelong upland bird hunter. I have been blessed with the opportunity to successfully hunt 11 species of wild upland game birds (including four species of quail) in eight states over the last three decades. Each and every state I have hunted had the desired upland game bird species if quality landscape-level habitat required by that particular species was available. Parts of these states suffer from the same problems we do here in North Carolina, and those areas are known by experienced hunters as places to avoid if you visit intending to hunt. But wherever habitat is found in abundance, the game bird local to the area in question seems to thrive. Whether we are talking about ring-necked pheasants and sharp-tailed grouse in North Dakota, prairie chickens in the Sandhills of Nebraska, Mearns' and scaled quail in Arizona, or bobwhites in parts of the central and southern Plains, upland game birds seem to do just fine if quality habitat is available on a large landscape. Furthermore, we do have examples of healthy and abundant quail populations on intensively managed areas right here in the South — even a few in North Carolina. We know that the right blend of habitat will result in bobwhite numbers not seen on average landscapes these days.

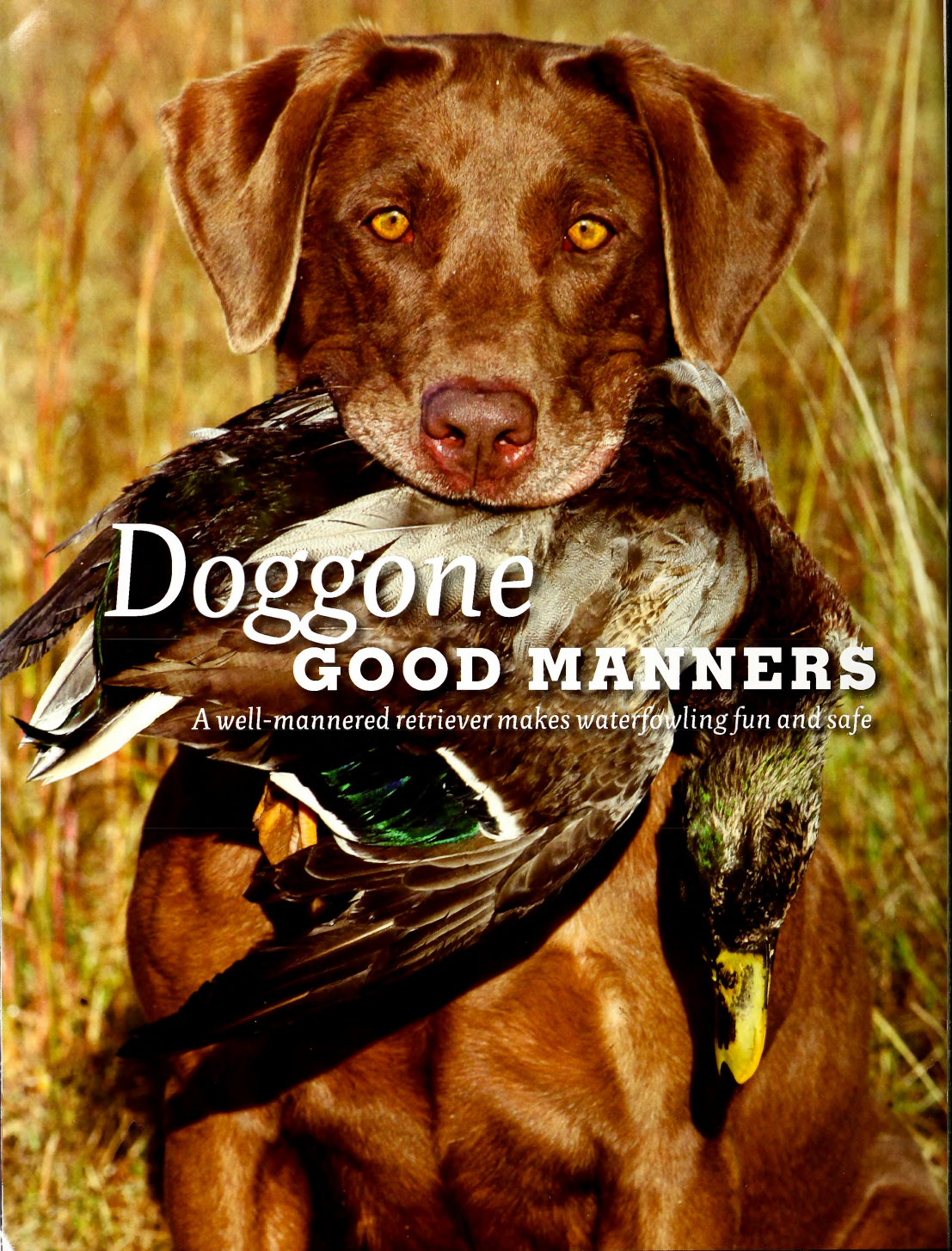
The bobwhite quail is not the only grassland/shrubland bird that is declining due to habitat deterioration. Dozens of grassland/shrubland songbirds are also in decline nationwide, and the loss of habitats for these types of birds is one of the greatest conservation concerns throughout the nation. However, where these birds remain abundant, there is always a landscape of suitable, high-quality habitat to be found. What further evidence do we need to recognize that habitat really is the key when discussing the decline of our favorite game bird, the bobwhite quail? The bobwhite decline has been ongoing for decades as habitat has slowly deteriorated, and hunters are desperate for a solution. Unfortunately, easy fixes are not available.

Mark D. Jones is the supervising wildlife biologist in the N.C. Wildlife Resources Commission's Private Lands Program.

Part II: In the next issue, we will explore a variety of solutions that have been proposed to address the decline of bobwhites and bring back the South's iconic game bird.

MELISSA McGAW / NCWRC

WILDLIFE MANAGEMENT'S MAJOR UNRESOLVED PROBLEMS.



Doggone GOOD MANNERS

A well-mannered retriever makes waterfowling fun and safe

Written by Mike Zlotnicki & Photographed by Melissa McGaw

Waterfowl hunting, especially from a blind, is a wonderful pursuit. It's also fraught with potential dangers. Water, ice, darkness, guns, mud, dogs, decoys, boats and a compact environment create a mix of potential pitfalls. You can't control everything, but you can control your dog.

Dave Wilson of Newton Grove has been training retrievers for over 20 years. His kennel at Gold Leaf Retrievers stays full (about 24 dogs) year-round and has since he went full time back in 2003. Since then he's trained over 40 dogs to Master Hunter titles in American Kennel Club hunt tests, including 14 Master National passes.

Wilson, 44, got into retriever training the old-fashioned way.

"Like everybody else, I was a hunter and wanted a dog to pick up my birds," he said. "Later, I was messing around on the Internet and discovered AKC hunt tests. That really got me interested."

Wilson bought videos and books and "associated myself with the right people," including trainers Jim Elam of Warrenton and Alan Pleasant of Angier.

Obedience

Wilson cites several common failures in "shoot-and-splash" dogs—breaking, failing to cast, hard mouth, conditioning—but disobedience ranks at the top of his list.

"In my experience with dogs, I believe obedience is number one without a doubt," he said after a hot July training session. "You're not teaching a dog to retrieve, you're teaching a dog to obey. What I look for is talent. I can put the obedience in him. Obedience is the foundation."

Wilson starts the "informal" training at 3 to 4 months of age. "I'm just getting them the idea of what commands mean," he said. "They're here to learn and work for you."

"Sit," "here" and "heel" are the first commands, and all are taught physically using a lead and a choke collar (not a pinch collar). "Sit" trumps all other commands.

" 'Sit' means sit and STAY until you're told to do something different," said Wilson. "Make sure he fully understands sit. It's the most important thing they can learn. It means sit and be still… lining up for a retrieve, sitting still and being able to see the birds. "Sit" means control. Once you establish sit, you establish control."

"Here" follows "sit." For Wilson, "here" means "get close to me." "Heel" comes after "here." A stationary dog can be steered to

an extent using "here" and "heel" along with the handler's or gunner's body positioning and lean.

There are five "cardinal commands" in the retriever trainer's lexicon: sit, here, heel, fetch and back. The greatest of these is sit.

Breaking

Whether it's a dove field or duck swamp, dogs "breaking"—leaving without permission—is a common sight. It often comes upon seeing game or on the report of the gun. Many hunters ignore it because all they want is the dog to retrieve their bird, but breaking can be more than an over-eager retrieve.

"I've seen dogs steal doves from a dove pile. I've seen dogs retrieve another party's ducks," said Wilson. "Breaking ruins your hunt and is unsafe. It's as much a safety issue as it is an etiquette issue."

Again, "sit" is the foundation. If he's sitting, he's not breaking. Wilson likes to use a downed duck as a teaching opportunity to emphasize control.

"When a duck hits the water, I hesitate two or three seconds before sending him," said Wilson. "It's a perfect opportunity to teach control."

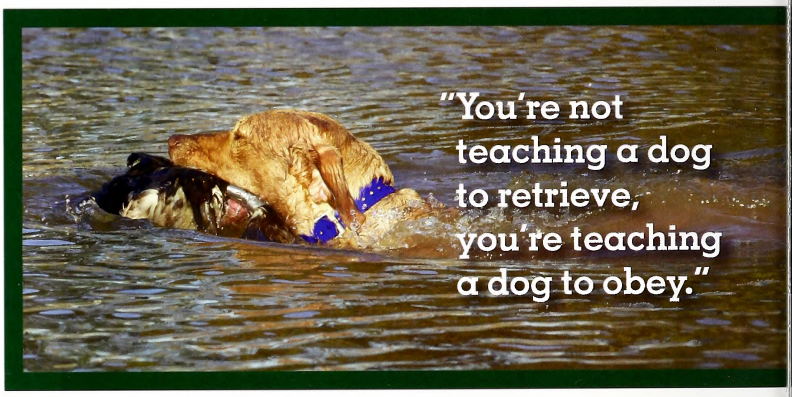
The command "mark" is used a lot during field training, but is phased out. During training Wilson will say "mark" and click the safety on his shotgun. Eventually the safety click means "mark" but Wilson also reinforces "sit" while birds are in play.

Failure to cast

Ever been on a duck hunt where the hunter had to throw rocks or shotgun shells to direct a dog on retrieve? Ever watched a dog cast only as far as one could throw a tennis ball in the yard? A retriever is not much good when it can't or won't go to where the bird is. Some hunters keep their dogs in the blind with limited visibility, while in other scenarios the dog can see the action from the get go. Either way, the dog may need some direction to secure the bird.

"Some people run every retrieve as a blind [retrieve]," said Wilson. "I think the dog is bred to mark . . . they have a prey drive. It helps their confidence."

Wilson explained that a blind retrieve is an extension of obedience. A marked retrieve is natural ability. He also said failure to cast is simply a lack of training or a lack of repetition during training. Spare the whistle and spoil the dog.



Hard mouth

You can't eat a bird if the dog renders it unpalatable during the retrieve. Wilson believes these hard-mouthed dogs are born that way. He quoted noted Tar Heel trainer Woody Thurman: "Pick the parents, don't pick the puppy."

During the force-fetch portion of training, pups are trained in how to hold the bumper. "If he's rough on the bumper, we'll cuff him under the chin and repeat 'hold' in a dominant voice," said Wilson. "Once he's holding it correctly, we stroke him from head to tail

Whether your dog is a Super Retriever Series competitor or a local duck swamp denizen, it should know the five basic obedience commands: sit, here, heel, fetch and back. It all starts with sit, and it's more than just convenience. An obedient dog is a safe dog, not only for his sake, but for other hunters' and dogs'.

and say 'hold' in a comforting voice."Wilson thinks that a dog mouths a bird because he likes how it tastes or he's playing with it. Either way, it's unacceptable.

In the field, Wilson will have the dog sit, take the bird and go through the "hold" process. If the dog is messing with the bird on a longer retrieve, whistling "sit" often takes the dog's mind off the bird while awaiting another command.

Conditioning

Your "six pack" may have turned into a case years ago, but there's no reason your dog should be fat. Conditioning is good for a dog's mental well being as well as physical fitness.

"There's no excuse for your dog not being in shape," Wilson said.

"A retriever marks with his eyes and locates with his nose. A dog panting heavily can't smell through his nose as well."

A panting dog can't retrieve as well either at the risk of ingesting water or feathers. Off-season exercise for retrievers is easier than pointing breeds or hounds, which may be out of sight before you pocket the leash. Informal retrieving sessions in the yard or more strenuous sessions in a park or field are not hard to do.

For neighborhood work, a tennis ball slingshot is available for about $20, and for fieldwork, products like the Retrieve-R-Trainer® (starting at about $100) utilize .22 blanks to launch a retrieving dummy up to 100 yards. This not only gives the dog a realistic hunting distance, it also helps acclimate the pup to gunfire. Don't let the ".22" part fool you; eye and ear protection are musts with these devices. A good pair of leather gloves will help with the recoil as well.

What's next

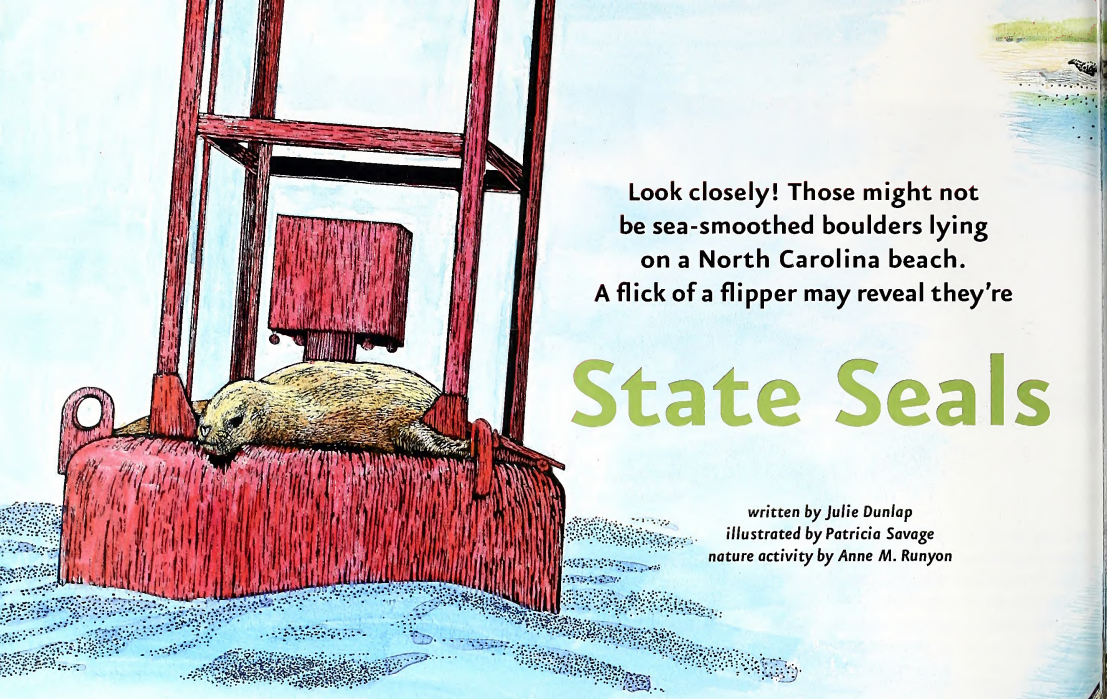
Are you happy with your dog? For some, a dog that will pick up a few birds a year and bring them back in (mostly) one piece is all they want. To train for the basics and beyond, there is plenty of help available from books and video products, including a series produced by Mid Carolina Media based in Raleigh. They've taken the late Richard Wolters' classic training methods and produced training videos like "Top Dog" and "Water Dog" for the home trainer.

Should you go the professional route, figure on a minimum of $600 a month and three months of training.

"I feel like all dogs can benefit from obedience training, force fetch training and [electronic] collar conditioning," said Wilson. "As far as trainers are concerned, go with someone you trust and do your homework."

Owning a competent retriever—a true partner in the field—should rank high on the list of any waterfowler. And while country-mile casts and multiple blind retrieves can make your hunting heart sing, remember it all starts with the basics. Start with "sit" and go from there.

Mike Zlotnicki is the associate editor of Wildlife in North Carolina. *He may be contacted at mike.zlotnicki@ncwildlife.org.*



Look closely! Those might not be sea-smoothed boulders lying on a North Carolina beach. A flick of a flipper may reveal they're

State Seals

written by Julie Dunlap
illustrated by Patricia Savage
nature activity by Anne M. Runyon

Though they prefer salt water, seals sometimes venture into fresh water. One was spotted sunning on a buoy in the Cape Fear River.

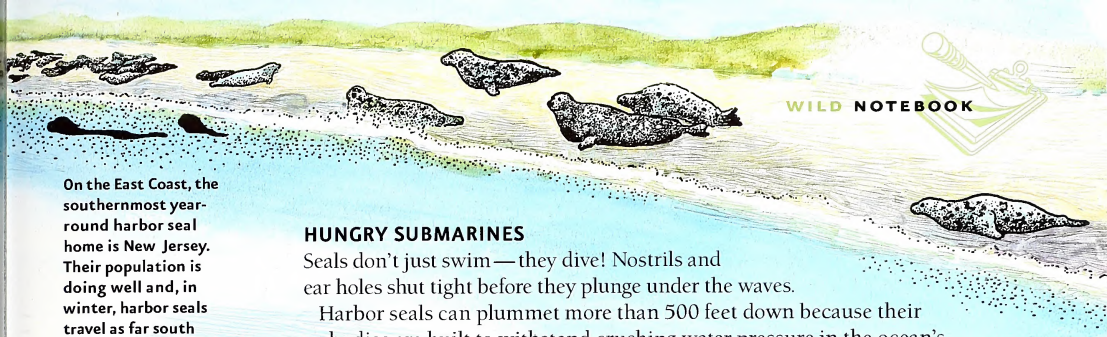
Pinnipeds are animals having flippers instead of feet—the name means fin- or wing-footed. Millions of years ago, ancestors of seals, walruses and other pinnipeds were land-living meat-eaters. But a taste for fish drew them into the water.

FIN-FOOTED FAMILY

Over the eons pinnipeds adapted to their watery hunting grounds, developing streamlined bodies as well as flattened limbs with webbed feet. Like many other marine mammals, they also grew to depend on blubber, a thick layer of fat, to stay warm in icy seas. These days, pinnipeds look clumsy and out-of-place on land. But underwater, wing-feet let them fly!

North Carolina's seals are uber-adapted to ocean living. All are true seals, an animal family that spends most of its time offshore. Like fish, they rely on powerful tails to push sleek bodies through the water. True seals, unlike sea lions and other pinnipeds, even lack outer ears because earflaps would slow their swimming. Of the 20 kinds of true seals, four species sometimes paddle past our coast: harbor, gray, harp and hooded seals. People are spotting them more and more often, perhaps because their populations are growing. The kind most likely to appear on Outer Banks beaches are harbor seals. Their faces look so much like their meat-eating ancestors that some call harbor seals "sea dogs."

Big, puppy-brown eyes help a harbor seal look like man's blubbery best friend.



On the East Coast, the southernmost year-round harbor seal home is New Jersey. Their population is doing well and, in winter, harbor seals travel as far south as the Carolinas.

HUNGRY SUBMARINES

Seals don't just swim—they dive! Nostrils and ear holes shut tight before they plunge under the waves.

Harbor seals can plummet more than 500 feet down because their bodies are built to withstand crushing water pressure in the ocean's depths. Plus, a seal's body uses oxygen wisely. Its heart rate slows from 100 beats a minute to about 10 beats, and its blood circulates mostly to the brain, heart, and other vital organs. Like whales and other marine mammals, it must surface to breathe sometimes. But seals can hold their breath over 20 minutes and even sleep underwater.

Down deep, seals' enormous round eyes see better than ours could in the murk. When it's too dark to see at all, they have keen ears and sensitive whiskers that detect vibrations in the water. Leopard seals in Antarctica use that sensitivity to find penguins and smaller seals for dinner. But other seals dine on fish, squid, and other seafood. When a school of herring darts past a hooded seal—*snap!* A fish is caught in the seal's sharp teeth, then swallowed whole.

Seal whiskers and other sense organs are also on alert for underwater dangers. Suddenly, a seal puts on a burst of speed, turning and twisting as it steers with its front flippers. The nimble escape means a shark will go hungry.

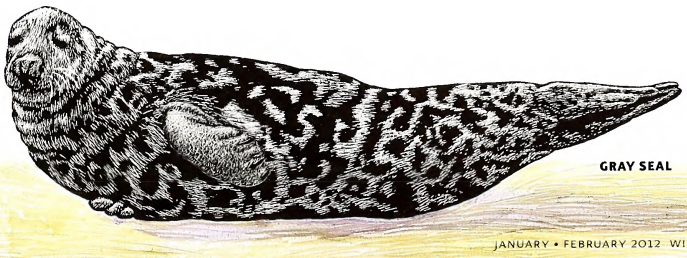
HARBOR SEAL

SEALS OUT OF WATER

As graceful as seals are underwater, they are ungainly on land. Harp seals and their close kin have small, weak flippers compared with sea lions and other eared seals. True seals' flippers cannot hold their body weight. Instead of walking, they must hunch along like 200-pound caterpillars.

Why leave the sea at all? Seals need to spend part of each day resting on land. In winter, seals take time out from chasing fish along the Carolina coasts to haul out, or come ashore. They usually pick remote beaches and sometimes spend days lounging on the sand. You might see one or a small group, basking on a sunny sand bar at low tide or lazing on rocks beside a bay. Shy and wary, seals watch for danger even while resting. If a boat or a dog on the beach gets too close, a seal can move surprisingly fast, dashing for the water's edge and vanishing under the waves.

Seals usually live in water close to the coasts, making them vulnerable to pollution. Some get tangled in fishing gear or plastic trash and become stranded on beaches, unable to swim or hunt.



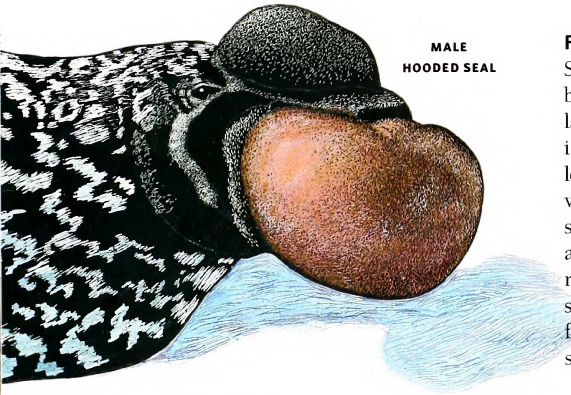
GRAY SEAL

Harp seal pups sometimes wait by holes in the ice for their mothers to return from fishing trips. They rub noses when she returns.

SEALED WITH A KISS

Once a year, female seals haul out in rookeries: islands, shores or ice flows where pups are born. In gray seal rookeries, males haul out too and guard up to 10 females each. But other true seal rookeries host only females and their pups. A few dozen harbor seals may gather in a New England rookery in late spring, while thousands of harp seals pup in bitter late winter, on ice floes in the North Atlantic.

Some newborn seals can swim an hour after birth, but they stay in the rookery, nursing every few hours. Their job is to grow fat on seal milk, a creamy drink 10 times richer than cow's milk. Mom needs lots of food herself to make the rich milk, so she must leave to fish between nursings. But before she goes, a mom and baby harp seal rub noses. Their "kiss" makes sure the mom knows her pup's unique smell and can tell it apart from other infant seals.



MALE HOODED SEAL

FOR THE LONG HAUL

Seal pups grow astonishingly fast—a harp seal can balloon from 8 pounds at birth to 80 pounds two weeks later. It needs that fat to live on when mom stops returning to nurse. The pup must live off its blubber until it learns to catch food for itself. Young seals, called juveniles, wander away from the rookeries looking for food. Such searches are probably why most seals near North Carolina are part-grown pups. They'll stay focused on fish until reaching maturity, between 4 and 6 years old. Then adult seals are ready to mate and have pups of their own. A female who can catch enough seafood—but escape from sharks—may haul out at the same rookery for over 25 years.

Get Outside

Win a gold seal. Seals seem to be hauling out on Carolina coasts more often in recent years. You can help keep track of them by watching for seals when you boat, drive, or walk along our shores. But remember; seals are wild animals. A frightened seal might bite or race for the water, using up energy it needs to survive. So if you spot one, stay at least 50 yards away. Use binoculars to get a better look, and watch how it behaves. If it makes noise or moves toward the water, back away. And if you think the animal is sick or injured, don't try to help it yourself. Contact a marine mammal expert to check out the animal. He or she will call a wildlife rehabilitator if the seal needs medical attention. Learning how to behave safely and respectfully around wild animals will earn you a conservation seal of approval.

Read and Find Out

- "Harp Seal Pups" by Downs Matthews, Simon & Schuster, 1997.
- "Seal Journey" by Richard Sobol and Jonah Sobol, Cobblehill Books, 1993.
- "Seals" by Eric S. Grace, Sierra Club Books, 1991.
- "Seals" by John Woodward, Benchmark Books, 1997.

On the Internet:

- New England Aquarium Harbor Seals exhibit: neaq.org/animals_and_exhibits/exhibits/individual_exhibits/harbor_seals_exhibit/index.php
- North Carolina Aquariums: ncaquariums.com
- Seal Conservation Society: pinnipeds.org

Find out more about Project WILD Workshops and literature at the Wildlife Commission's website at ncwildlife.org.

The Wildlife Endowment Fund

An Investment for the Future

Established in 1981, the Wildlife Endowment Fund allows the Wildlife Resources Commission to accept tax-deductible contributions for wildlife conservation. Money from the sale of lifetime licenses is also placed in this fund. Your donation or purchase will ensure that North Carolina will have a rich wildlife heritage for generations to come.

Lifetime License Form

Infant and Youth *(check appropriate block)*:

☐ Sportsman Infant $200
(under 1 year old — Application must be received before applicant has attained 1 year of age.)

☐ Unified Sportsman/Coastal Recreational Fishing Infant $275
(under 1 year old — Application must be received before applicant has attained 1 year of age.)

☐ Sportsman Youth $350
(ages 1 through 11 — Application must be received before applicant has attained 12 years of age.)

☐ Unified Sportsman/Coastal Recreational Fishing Youth $450
(ages 1 through 11 — Application must be received before applicant has attained 12 years of age.)

A copy of the birth certificate must accompany applications for infant and youth licenses. Birth certificate documentation cannot be returned.

Note: Pending satisfactory completion of the hunter safety course, persons who possess infant or youth licenses may exercise the privileges thereof when accompanied by an adult who is properly licensed to hunt in North Carolina. "Accompanied" is defined as maintaining a proximity to the hunter which enables the adult to monitor the activities of, and communicate with, the hunter at all times.

Adult (age 12 or older) *(check appropriate block)*:

☐ Comprehensive Inland Fishing $250
(N.C. residents only — includes basic inland fishing, trout & trout waters on game lands)

☐ Comprehensive Hunting $250
(N.C. residents only — includes basic hunting, big game, game lands & N.C. waterfowl)

☐ Sportsman $500
(N.C. residents only age 12 or older — includes basic hunting & inland fishing, big game, game lands, trout & N.C. waterfowl)

☐ Coastal Recreational Fishing $250
(N.C. residents only — includes coastal recreational fishing)

☐ Unified Sportsman/Coastal Recreational Fishing $675
(N.C. residents only — includes same privileges as the Sportsman, plus coastal recreational fishing)

A federal waterfowl stamp must be purchased separately for all N.C. hunting licenses.

Note: On or after July 1, 1991, a person, regardless of age, may not procure a hunting license or hunt in North Carolina without producing a certificate of competency for completing the hunter safety course or a hunting license effective prior to July 1, 1991, or by signing the statement below that he or she had such a license.

Check appropriate block and attach required copy:

☐ Copy of Prior Year Hunting License

☐ Copy of Hunter Safety Certificate of Competence

☐ In lieu of copy, I am signing the statement below:

Statement: I certify that I was a licensed hunter prior to July 1, 1991.

Signature _____ Date _____

Visit us online at www.ncwildlife.org or call 1-888-248-6834 for a complete list of lifetime licenses, including those for nonresidents and 65 and older.

Lifetime License

Complete the following information if applying for a lifetime license. Be sure to check appropriate block(s) on reverse side ***(please print legibly)*****:**

Name of Applicant _____

Daytime Phone _____

Mailing Address _____

Resident Address _____

County _____ Date of Birth _____ Driver License # _____

E-mail Address _____

Is this license a gift? ☐ Yes ☐ No If yes, mail license to ☐ Donor or ☐ Applicant.

License Donor's Name *(if applicable)* _____

Donor's Telephone # _____

Donor's Mailing Address _____

City _____ State _____ Zip _____

Method of Payment: ☐ Check ☐ VISA ☐ MasterCard

Acct. # _____ Expires _____

Print name exactly as it appears on credit card _____

Cardholder's Signature _____ Date _____

Personalize your Lifetime License for an additional $5:
Indicate your selection of letters, numbers, dashes, periods, commas and /or blanks up to 6 spaces: __ __ __ __ __ __

Indicate your personal message including letters, numbers, dashes, periods, commas and /or blanks up to 21 spaces:

__ __ __ __ __ __ __ __ __ __ __
__ __ __ __ __ __ __ __ __ __

Signature of Applicant or Donor _____ Date _____

Note: Only adult lifetime licenses may be purchased by phone or online (VISA or MasterCard only). Call toll-free (1-888-248-6834) or visit us at www.ncwildlife.org. Use this form to purchase infant and youth lifetime licenses by mail.

Tax-Deductible Contribution

☐ I wish to make a tax-deductible contribution to the Wildlife Endowment Fund. Enclosed is my check for $ _____. ***(Credit card payments cannot be accepted.)***

Name _____

Daytime Phone _____

Mailing Address _____

City _____ State _____ Zip _____

Make checks payable to: *Wildlife Endowment Fund*

Transactions are not considered final until the check has cleared the bank. Items purchased with a returned check will be made invalid. A service charge of up to $25 will be charged on any returned check. (N.C.G.S. 25-3-506)

Mail completed application and payment to:
NCWRC, License Section, 1707 Mail Service Center, Raleigh, NC 27699-1707

Office location: *NCSU Centennial Campus, 1751 Varsity Drive, Raleigh, N.C. 27606*
Telephone: 1-888-248-6834 (2HUNTFISH)

Harbor Seal Paper Sculpture

1) Cut out seal design. Be sure to cut slit under nose. Fold down along ··· backbone line, from shoulders to tail.

2) Fold down along ··· curved neck line. Then pinch, tuck and glue down left side of neck. Head will turn to left.

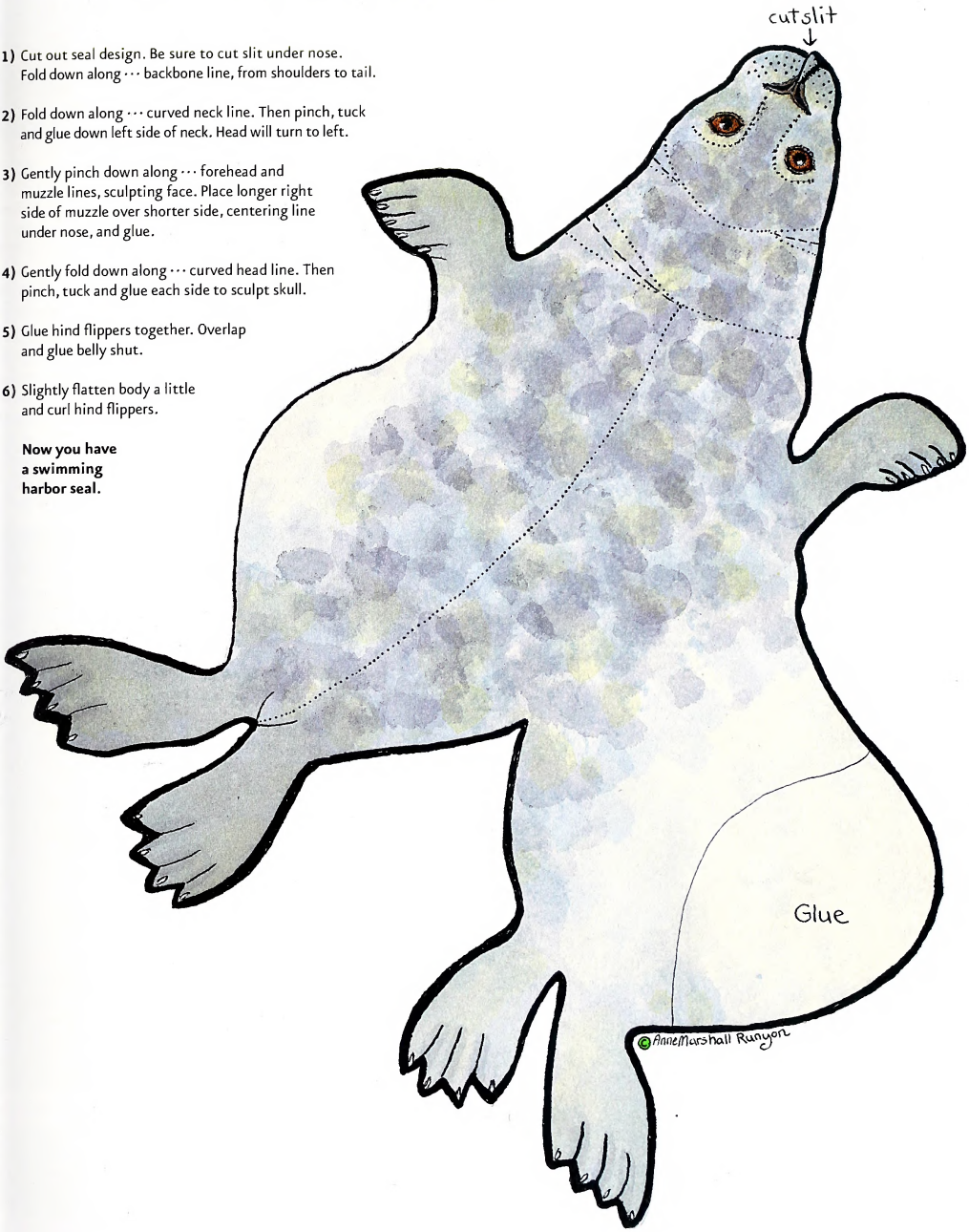
3) Gently pinch down along ··· forehead and muzzle lines, sculpting face. Place longer right side of muzzle over shorter side, centering line under nose, and glue.

4) Gently fold down along ··· curved head line. Then pinch, tuck and glue each side to sculpt skull.

5) Glue hind flippers together. Overlap and glue belly shut.

6) Slightly flatten body a little and curl hind flippers.

Now you have a swimming harbor seal.



Herp Habitat in the Back Yard

For people looking to make their property more inviting to reptiles and amphibians, the N.C. Wildlife Resources Commission has on its website a new publication that provides tips on creating suitable habitat for frogs, toads, lizards and snakes.

"Reptiles and Amphibians in Your Backyard," is a color, eight-page publication that was produced by biologists from N.C. State University, the Wildlife Commission, N.C. Partners in Amphibian and Reptile Conservation, and the N.C. Museum of Natural Sciences.

"Many of the practices explained in the book to attract reptiles and amphibians are easy and fairly quick to do, even for folks who aren't gardeners," said Jeff Hall, the Partners in Amphibian and Reptile Conservation Biologist with the commission. "It's mainly a matter of taking these critters into consideration when managing your lawn and garden. Things such as adding a water garden, planting native vegetation, providing shelter such as rock piles and log and brush piles, and limiting the use of pesticides and chemicals are simple yet effective techniques to create a backyard habitat that will attract a wide variety of wildlife."

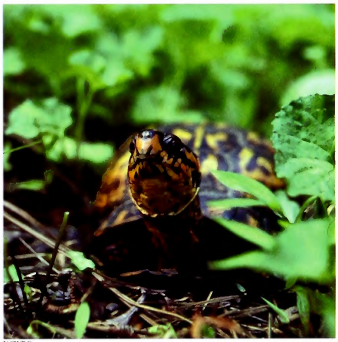
Even better for wildlife enthusiasts, these same practices and techniques will also attract birds, butterflies, dragonflies and other wildlife to a back yard.

Along with habitat tips, the book provides information on the life history of reptiles and amphibians as well as the ecological importance of "herps," as reptiles and amphibians are collectively called.

"Some herps are predators that keep the numbers of their prey in check, such as toads that will eat thousands of insects in their lifetime," Hall said. "Others are found on the opposite end of the food chain, like frogs, which make tasty meals for many fishes, birds, mammals and reptiles." According to Hall, herps also can be good indicators of healthy natural environments. "A habitat rich with reptiles and amphibians usually indicates that area supports a variety of other wildlife," Hall said. "Whereas the absence of herps in an area where we would expect to find them can mean that the habitat is unsuitable for other types of wildlife as well."

More than 160 species of reptiles and amphibians are found in North Carolina, and many of them are common to urban and suburban areas. However, some species have experienced declining populations over the last decade due to a variety of factors stemming from the state's rapid growth.

"North Carolina's human population is growing by leaps and bounds, particularly in urban and suburban areas, and with this growth comes habitat loss and fragmentation, increased traffic and roadways, and sedimentation and pollution, all of which wreak havoc on reptile and amphibian populations," Hall said. "People can do a lot to help conserve these populations in their own backyards by thinking about wildlife when managing their lawns and gardens."



NCWRC

JEFF HALL / NCWRC

Work on the conservation of reptiles and amphibians is funded by the commission's Nongame and Endangered Wildlife Fund, which supports wildlife research, conservation and management for animals that are not hunted and fished. North Carolinians can support this effort by:

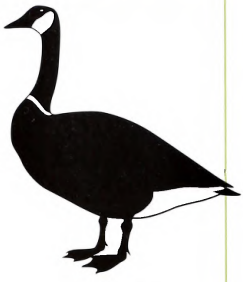
- Donating through the Tax Check-off for Nongame and Endangered Wildlife on their N.C. State Income tax form.
- Registering a vehicle or trailer with a N.C. Wildlife Conservation license plate.
- Mailing in a contribution form.

For more information about reptile and amphibian conservation in North Carolina, visit ncwildlife.org, ncparc.org, or contact Jeff Hall at 252-917-1683; jeff.hall@ncwildlife.org.

e NEWSLETTER

Get N.C. Wildlife Update—news including season dates, bag limits, legislative updates and more—delivered to your Inbox from the N.C. Wildlife Resources Commission. Sign up at www.ncwildlife.org/enews.

Currituck Students Help Rebuild Waterfowl Blinds



When Hurricane Irene took down two of the four waterfowl blinds in Currituck Sound on a N.C. Wildlife Resources Commission game land, the biologists and technicians knew exactly who to call. And it wasn't seasoned carpenters or longtime experts.

They called Jeff Rhodes and his woodshop students at Currituck High School. The decision to call Rhodes was natural—his students had made several blinds for the Wildlife Commission in the late 1990s. The students also have built blinds for the U.S. Fish and Wildlife Service. The well-made, high-quality blinds had withstood hurricanes and tropical storms for more than a decade when two blinds fell before Hurricane Irene's fury in August.

So the Wildlife Commission asked Rhodes if his students could quickly build a couple of replacement blinds in time for the hunters who would soon flock to the Currituck Banks Game Land for waterfowl season. Rhodes easily said yes.

"A lot of my students are hunters or outdoorsmen," said Rhodes, who is in his 16th year of teaching at Currituck High School. "I like to get them involved in a project that not only helps the community, but also piques their interest. It's easier to get them excited that way."

Rhodes said many of the students had helped to build waterfowl blinds for their families. And for students needing to develop carpentry skills, building the blind will prepare them for their more advanced project—constructing a three-bedroom house.

However, the N.C. Wildlife Resources Commission, and the waterfowl hunters who use the blinds in the Currituck Sound, may benefit the most. With short notice, the students have provided two blinds to replace the ones the hurricane destroyed.

"They have provided a real service to all of our constituents," said Dale Davis, a biologist with the commission. "They have a local connection to the Currituck Sound, and hunt on the sound and have contributed to the continued use of the Wildlife Commission blinds by all sportsmen."

Use of the blinds in the Currituck Sound adjacent to the Currituck Banks Game Land is by permit only. For more information, visit ncwildlife.org/Licensing/PermitHuntingOpportunities.aspx.

Commission Launches Fishing Line Recycling

The N.C. Wildlife Resources Commission, in partnership with the Fayetteville Area Anglers Network, Bass Lake Park and Berkley, has launched a pilot program at three public fishing areas to make proper disposal of used fishing line more convenient for anglers.

The commission's new fishing line recycling program encourages anglers to recycle their used fishing line by placing collection bins in high-traffic areas at the John E. Pechmann Fishing Education Center and Lake Rim public fishing area, located in Fayetteville, and Bass Lake Park, located in Holly Springs.

The bins, which are constructed of PVC pipes, are attached to posts located near fishing areas and on piers. The line will be collected, packaged and shipped to Berkley, a fishing tackle company that will reuse the line to build fish habitat structures.

Commission staff is monitoring this program through November 2012 and is seeking volunteers to develop partnerships for future sites and providing manpower to empty the bins on a monthly basis and ship the line to Berkley for recycling. Interested volunteers can contact Smith at 910-868-5003, ext. 14, or email, kris.smith@ncwildlife.org.

IN SEASON

In January and February, these seasons are open in North Carolina:

Black Bear: See *Regulations Digest* for seasons and locations.
Bobcat: Through Feb. 29.
Brant: Through Jan. 28.
Canada Goose and White-Front Goose: Resident Population Zone through Feb 4; Northeast Hunt Zone through Jan. 21–28 (permit only).
Common Snipe: Through Feb. 28.
Crow: Through Feb. 29.
Ducks, Coot and Mergansers: Through Jan. 28.
Feral Swine: No closed season.
Fox: See *Regulations Digest* for seasons and locations.
Hatchery Supported Trout Waters: Through Feb. 29.
Light Geese (Snow, Blue and Ross'): Through March 10.
Mourning Dove: Through Jan. 13.
Pheasant: Through Feb. 1.
Quail: Through Feb. 29.
Rabbit: Through Feb. 29.
Raccoon and Opossum: Through Feb. 29.
Rails, Gallinule and Moorhen: Through Nov. 9.
Ruffed Grouse: Through Feb. 29.
Sea Ducks: Through Jan. 31.
Squirrel: Gray and red through Feb. 29.
Tundra Swan: Through Jan. 31 (by permit only).
Urban Archery: Jan. 14–Feb. 18.
White-tailed Deer: Eastern: Gun season through Jan. 2. Central: Gun season through Jan. 2. Northwestern: Gun season through Jan. 2.
Woodcock: Through Jan. 28.
Youth Waterfowl Day: Feb. 4.

There is no closed season or bag limit for groundhog, coyote, striped skunk and nutria. There is an open season for taking beaver with firearms or bow and arrow during any other open season for the taking of wild animals.

Check the 2011–2012 *North Carolina Inland Fishing, Hunting and Trapping Regulations Digest* for bag limits and applicable maps or visit www.ncwildlife.org.

CALENDAR OF EVENTS

FRIDAY–SUNDAY, JAN. 6–8

Check out the latest rods, reels, lures and other fishing gear at the Bass and Saltwater Expo at the State Fairgrounds in Raleigh. Event also includes boat dealers and seminars with professional fishermen.
Visit ncboatshows.com.

FRIDAY–SUNDAY, FEB. 10–12

Check out the new 2012 N.C. Duck Stamp print at the 17th annual East Carolina Wildlife Arts and Decoy Carving Festival in Washington. Approximately 100 exhibitors will be on hand. The festival also features calling and carving competitions and retriever demonstrations.
Visit eastcarolinawildfowlguild.com.

SATURDAY–SUNDAY, FEB. 11–12

See the latest gear and learn about how to improve your fly-fishing at the Fly-Fishing Show at the N.C. State Fairgrounds in Raleigh. Exhibitors include manufacturers, shops, guides and artists. Be sure to visit the N.C. Wildlife Resources Commission booth. Show opens at 9 a.m. each day.
Visit flyfishingshow.com.

FRIDAY–MONDAY, FEB. 17–20

Take part in the 15th annual Great Backyard Bird Count. Anyone may take part, and it's as simple as spending 15 minutes a day counting your local birds. Checklists and instructions are available at:
birdsource.org/gbbc.

FRIDAY–SUNDAY, FEB. 24–26

Learn about white-tailed deer and their management at the ninth annual Deer and Habitat Management Expo at the Hickory Metro Convention Center. Among the featured guests will be Dr. Craig Harper and Eva Shockey. The event is sponsored by the Western Carolina Quality Deer Management Program. Contact Bennie Riddle at 828-284-2109 or growinbucks@yahoo.com.

Readers should check with the contact listed before traveling to an event. Items for listing should be conservation-oriented and should be submitted at least four months in advance to mike.zlotnicki@ncwildlife.org, or call (919) 707-0175.

Kennedy Promoted to Enforcement Major

MELISSA McGAW / NCWRC

The N.C. Wildlife Resources Commission has promoted Todd Kennedy to the rank of major, with responsibilities for field operations within the Division of Law Enforcement.

Kennedy will supervise a statewide hierarchy of some 200 wildlife officers, who enforce fish and game regulations and boating laws. He was previously the captain and a lieutenant in District 5, a jurisdiction comprised of Alamance, Rockingham, Orange, Granville, Durham, Person, Caswell, Randolph, Chatham, Lee and Guilford counties. He had been stationed in District 5 for the past 16 years.

"I look forward to this service and the challenge of the job," said Maj. Kennedy. "The men and women wearing the uniform are important for conservation and public safety, through education and enforcement. I value being a part of the tradition of being a wildlife officer in North Carolina."

A 22-year veteran with the N.C. Wildlife Resources Commission, Kennedy is a law enforcement firearms and tactical instructor. A Burlington, N.C. native, he began his career in Moore County in 1990.

His predecessor, Jack Staley, retired Nov. 1, after 30 years of service. "Wildlife officers are most often 'the face' of this agency to the public, and they do a tremendous job in a variety of situations, sometimes tough," Staley said. "I am proud of them. And I can say I enjoyed my time in the field, and got to be a part of some important moments at headquarters. I can reflect back on a great career."

Wildlife officers enforce hunting, trapping and inland fishing regulations and boating laws to protect the resources of the state and the safety of its citizens and can arrest for any criminal offense committed in their presence. Their authority is granted by N.C. G.S. §113-136. Sportsmen and the public can assist wildlife officers in their duties by reporting violations anytime by calling 1-800-662-7137.

Piedmont Lakes Receive Fishing Enhancements

Finding the newest fishing hot spots at three Piedmont lakes may be as simple as looking in the trees.

Since earlier this year, N.C. Wildlife Resources Commission personnel have bundled and sunk more than 80 evergreen trees at Jordan Lake, dropped eight artificial "tree reefs" constructed of recycled plastic in Hyco Lake, and cut and cabled 36 trees along the shoreline of Randleman Lake—all to attract fish and improve fishing opportunities.

Many popular sportfish, such as largemouth bass, crappie and bluegill, congregate around trees and artificial structures because of the food, shelter and nursery habitats they provide, according to Corey Oakley, a biologist with the commission who oversees fisheries management for Randleman, Jordan and Hyco lakes.

"Our research has shown that crappie really like to congregate around sunken evergreen trees and artificial structures, so crappie anglers should cast around the fish attractor buoys on Jordan and Hyco lakes this fall," Oakley said. "Likewise, as the largemouth bass and crappie fisheries continue to develop in Randleman Lake, the cut-and-cabled trees will provide excellent nursery habitats as well as locations for large fish to capture prey. In fact, we have already received reports from anglers who have caught large bass around these trees."

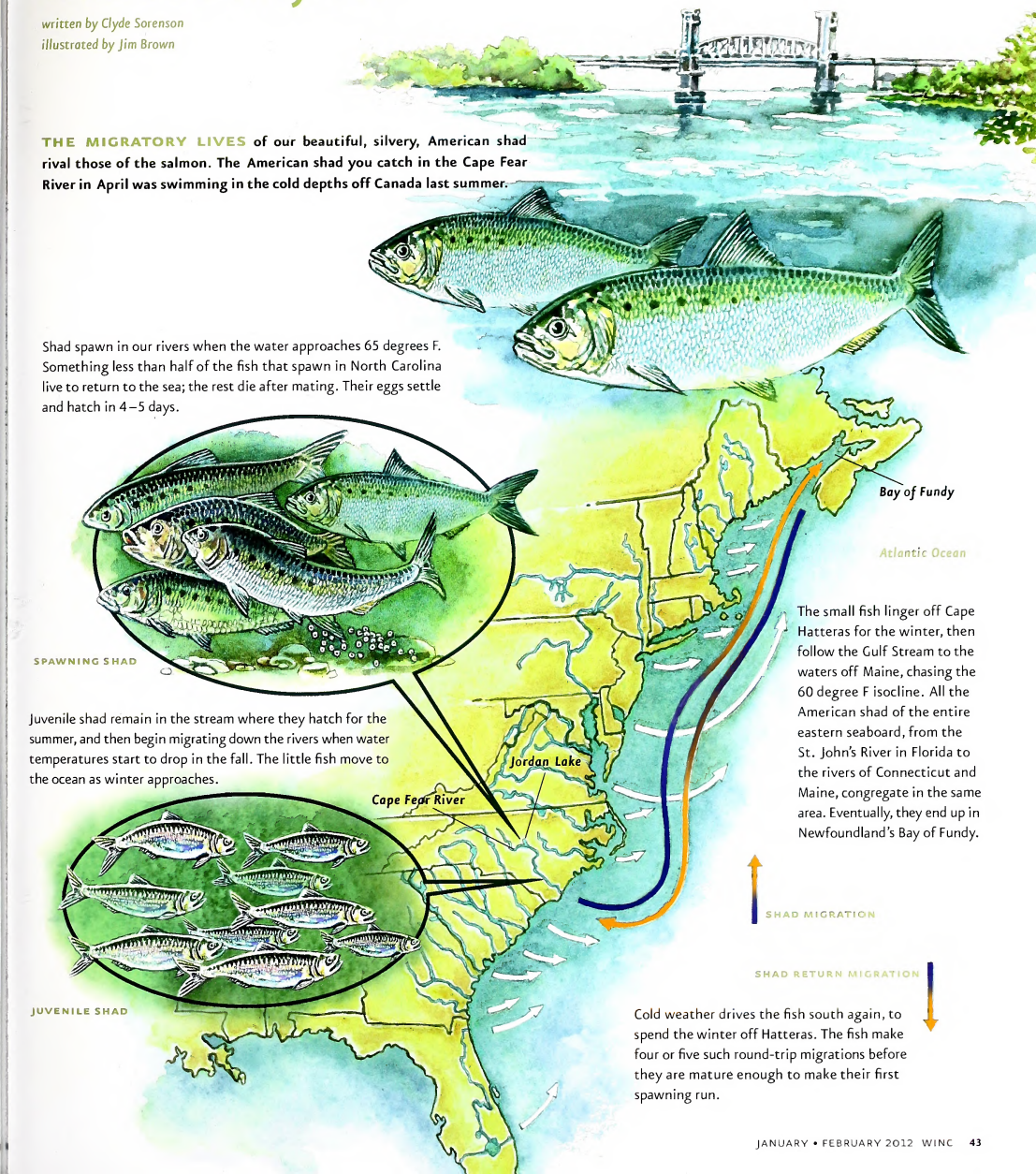
The evergreen trees and artificial structures on Jordan and Hyco are clearly marked with fish attractor buoys, which are white with orange markings, black lettering, and a green N.C. Wildlife Resources Commission diamond. The cut-and-cabled trees on Randleman Lake are marked with white and black N.C. Wildlife Resources Commission habitat enhancement signs.

Where Do American Shad Come From? Where Do They Go?

written by Clyde Sorenson
illustrated by Jim Brown

THE MIGRATORY LIVES of our beautiful, silvery, American shad rival those of the salmon. The American shad you catch in the Cape Fear River in April was swimming in the cold depths off Canada last summer.

Shad spawn in our rivers when the water approaches 65 degrees F. Something less than half of the fish that spawn in North Carolina live to return to the sea; the rest die after mating. Their eggs settle and hatch in 4–5 days.



Juvenile shad remain in the stream where they hatch for the summer, and then begin migrating down the rivers when water temperatures start to drop in the fall. The little fish move to the ocean as winter approaches.

The small fish linger off Cape Hatteras for the winter, then follow the Gulf Stream to the waters off Maine, chasing the 60 degree F isocline. All the American shad of the entire eastern seaboard, from the St. John's River in Florida to the rivers of Connecticut and Maine, congregate in the same area. Eventually, they end up in Newfoundland's Bay of Fundy.

Cold weather drives the fish south again, to spend the winter off Hatteras. The fish make four or five such round-trip migrations before they are mature enough to make their first spawning run.

How to Shoot a Computer

written by Jim Dean

It may be possible to sum up the major fascinations for most kids of a certain age—from, say, about 4 to 12 years old—with two words. Pow! Boom!

You could substitute any similar action word gleaned from the make-believe super heroes of mid-20th century—the appeal always revolved around shooting things and blowing stuff up (noisy bodily emissions run a close second).

JIM DEAN

In my neighborhood, we ran the back yards, alleys and vacant lots all day virtually every day in all out conflict. We were mostly generic cowboys, Indians, outlaws, army against army, horde against horde. Rarely did we stage battles that had socio-political implications—Rebs against Yankees or USA against Germany or Japan (this was in the 1940s)—simply because nobody wanted to be on the other side.

But we often chose to "become" specific heroes like Superman, the Green Hornet or Captain Marvel. Saturday afternoon western movie heroes were particular favorites—among them The Durango Kid, Allen Rocky Lane, Randolph Scott, Lash LaRue and so many others (but not Gene Autry or Roy Rogers because they'd stop fighting to sing, for Heaven's sake).

"We were being truly trusted for the first time in our lives, and we didn't want to screw that up."

Radio contributed its share, too, especially "The Lone Ranger" (Monday, Wednesday and Friday at 6:30 brought to you by Merita Bread—ask me any question about the masked man; I probably know the answer).

Anyway, this heroic mix led to occasional confrontations between such unlikely alter egos as Sky King and Geronimo. And it could really get messed up if Alan Ladd (Shane) stepped out into the dusty street for a showdown and found himself face to face with . . . gulp! . . . himself.

In actuality, the roles we played didn't matter all that much because combat was the game, and that never changed. Exhausted, filthy and hungry, our units would be disbanded reluctantly around dusk by the rallying cries of our commandants calling us home to supper.

A few easily ignored sociologists worried about all this youthful infatuation with shooting and explosives, and they certainly weren't comforted when we reached our teen years and gained access to more advanced weaponry—firecrackers, cherry bombs, M-80s, air rifles, shotguns and .22s.

But you know what? Almost all of us shocked the pejabbers out of our critics by growing up to be self-reliant, responsible adults with remarkably clear understandings of what was make believe and what was real. I got a Daisy carbine air rifle fairly early, followed at age 12 by a .22 Winchester bolt-action rifle. A 16-gauge double-barreled Fox shotgun was added a few years later. At each step, parents and grandparents relentlessly taught proper handling and safety, and we took pride in learning those lessons. After all, we were being truly trusted for the first time in our lives, and we didn't want to screw that up.

The plastic cowboys, Indians and soldiers went into the attic with their tin forts as we gradually earned the privilege of using our new guns on safe targets. On my grandparents' farm in Northampton County, I spent many happy hours prowling the woods and fields. My favorite air rifle targets were those same plastic cowboys and soldiers arranged in the "badlands" of plowed fields or Grandma's garden. A near miss yielded a satisfying puff of dust.

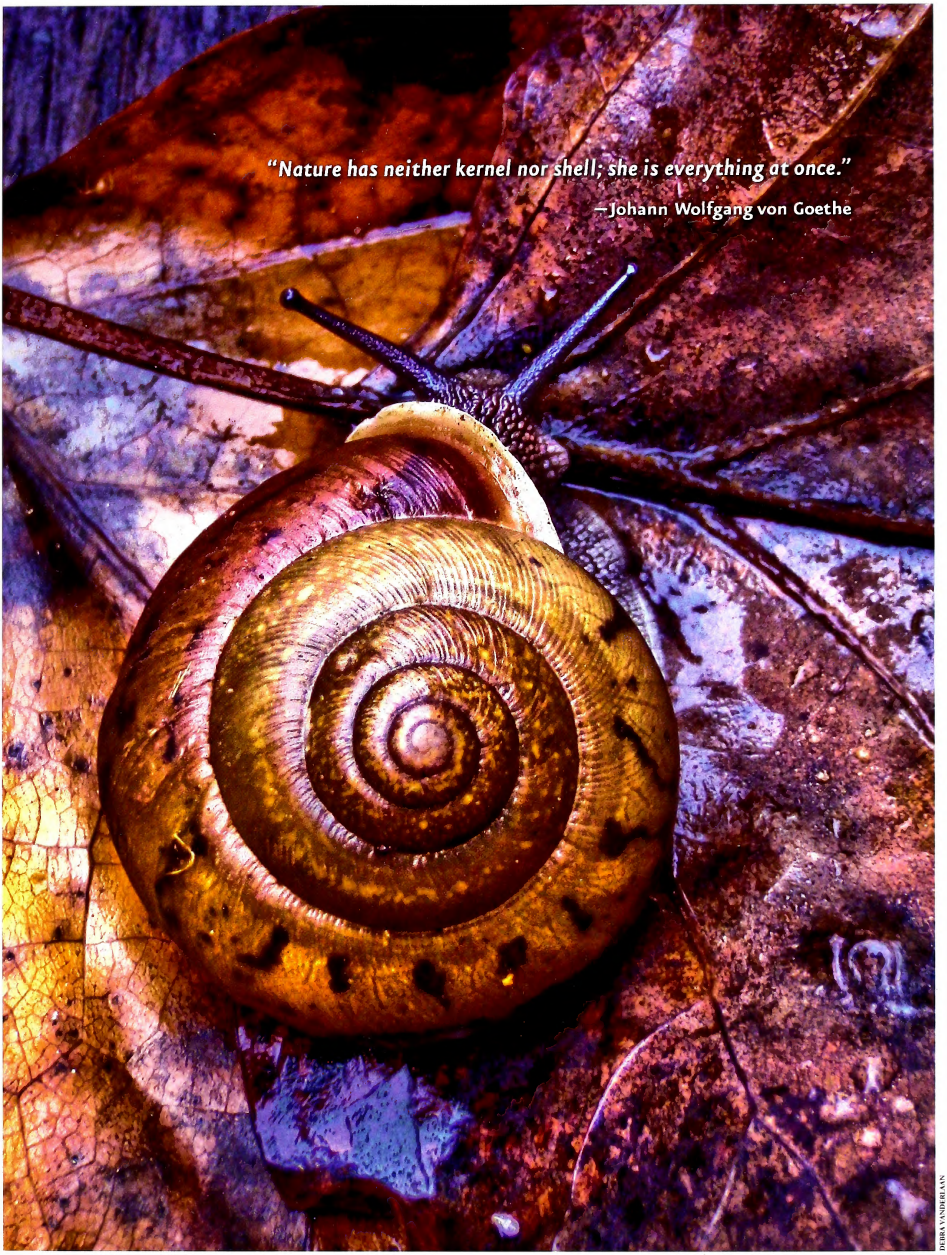
The .22 was reserved for shooting at targets or random tin cans. Shotgun wing-shooting skills were sharpened on clay pigeons. Eventually, we were deemed sufficiently reliable to hunt squirrels or bobwhites with the adults. This was a fairly typical coming of age sequence, and it is doubtful that many kids raised in such a manner have ever been tempted to use one of those cherished childhood gifts to become a threat to society.

One thing has not changed. Kids are still fascinated with Pow! and Boom!, but video games have largely replaced the childhood war games and comic book heroes of yore. With so many adults also fascinated by these often violent video games, it almost seems as though we're blurring the distinction between youthful fantasy and adult reality. However, one would like to think that we still know the difference whether we're playing army at age 10 or manipulating a modern joystick at age 30. Even so, it seems that the parents who once guided us safely across that gap are increasingly missing in action.

Unlike some in my generation, I never had to fire a shot in anger (thank goodness), but I have fired many thousands in happiness. And once in awhile, I find a target any kid would love.

This past October at the farm, I removed the brain (motherboard) from an old MacIntosh to destroy it so that no one would ever be able to obtain social security numbers or other personal information.

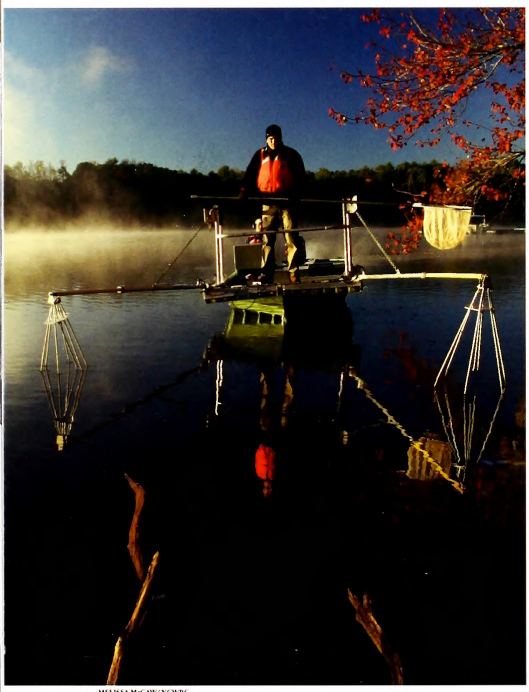
I propped it up against a dirt row in the field. Four shots with a .38 Smith & Wesson barely dented it, but a 12-gauge slug did the trick. There was even a very satisfying puff of dust.



DEBRA VANDERLAAN

Threetooth snail, Triodopsis sp.

IN THE MARCH · APRIL ISSUE



MELISSA McGAW / NCWRC

TOOLS OF THE TRADE

Fisheries biologists catch a lot of fish, but how and why they do it is quite different from everyday anglers.

TEXAS OR CAROLINA?

It isn't about barbecue; it's about rigging soft plastics for bass. But "low and slow"— the pit master's mantra — still applies.

SOMETHING BATTY

Wildlife biologists are attempting to discover the secrets of white-nose syndrome, a fungus that is devastating bat populations.

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